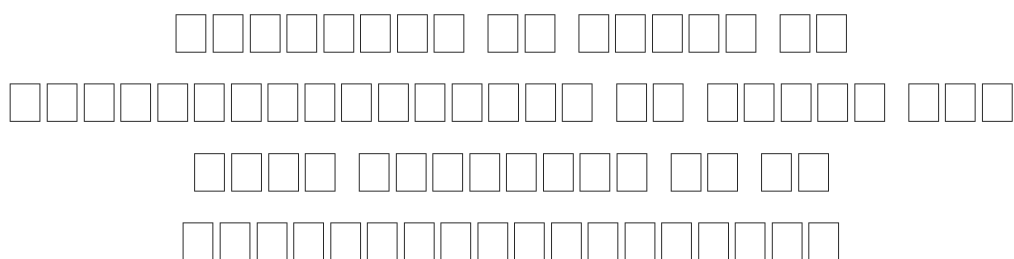


**An Exploratory Study on Utilization Pattern of Camel  
Leather and Problems Faced by the Artisans of Rajasthan**



**MISS SWATI ACHARYA**

**Thesis**

**MASTER OF SCIENCE (COMMUNITY SCIENCE)**

**IN**

**(TEXTILES AND APPAREL DESIGNING)**



**2019**

**DEPARTMENT OF TEXTILES AND APPAREL DESIGNING COLLEGE  
OF COMMUNITY AND APPLIED SCIENCES, UDAIPUR  
MAHARAJA PRATAP UNIVERSITY OF AGRICULTURE AND  
TECHNOLOGY, UDAIPUR (RAJASTHAN)**

# **An Exploratory Study on Utilization Pattern of Camel Leather and Problems Faced by the Artisans of Rajasthan**

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**A**

**THESIS**

**SUBMITTED TO THE**

**MAHARANAPRATAPUNIVERSITY OF**

**AGRICULTURE AND TECHNOLOGY, UDAIPUR**

**IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR**

**The Degree of**

***MASTER OF SCIENCE IN COMMUNITY SCIENCE***

***(Textiles and Apparel Designing)***

**By**

**Miss SWATI ACHARYA**

**2019**

**CERTIFICATE - I**

**CERTIFICATE OF ORIGINALITY**

The research work embodied in this thesis titled “**An Exploratory Study on Utilization Pattern of Camel Leather and Problems Faced by the Artisans of Rajasthan**” submitted for the award degree of **Master of Science** to Maharana Pratap University of Agriculture and Technology, Udaipur (Raj.), is original and bonafide record of research work carried out by me under the supervision of Dr. Sudha Babel, Professor, Department of Textiles and Apparel Designing, College of Community and Applied Sciences, MPUAT Udaipur. The contents of the thesis, either partially or fully, have not been submitted or will not be submitted to any other Institute or University for the award of any degree or diploma.

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**Dr.Meenu Srivastava**  
Professor & Head  
Department of Textiles and Apparel  
Designing  
College of Community and Applied  
Sciences,  
MPUAT, Udaipur.

**Dr. Sudha Babel**  
**Major Advisor**

**Dr. RituSinghvi**  
Dean,  
College of Community and Applied Sciences,  
MPUAT, Udaipur.

**MAHARANA PRATAP UNIVERSITY OF AGRICULTURE AND  
TECHNOLOGY,  
COLLEGE OF COMMUNITY AND APPLIED SCIENCES, UDAIPUR**

**CERTIFICATE - III**

Date: .....

This is to certify that this thesis entitled “**An Exploratory Study on Utilization Pattern of Camel Leather and Problems Faced by the Artisans of Rajasthan**” submitted by **Miss Swati Acharyato** Maharana Pratap University of Agriculture and Technology, Udaipur in partial fulfillment of the requirements for the degree of **Master of Science** in the subject of **Textiles and Apparel Designing** after recommendation by the external examiner was defended by the candidate before the following members of the examination committee. The performance of the candidate in the oral examination held on ..... was found satisfactory. We therefore, recommend that the thesis be approved.

**Dr. Meenu Srivastava**

Professor and Head

Department Textiles and Apparel Designing,

MPUAT, Udaipur

**Dr. Sudha Babel**

Major Advisor

**Dr. Rupalabel**

Member

**Dr. Ritu Singhvi**

Dean,

College of Community and Applied Sciences,

MPUAT, Udaipur

**Dr. Gaytri Tiwari**

Member

**Dr. Sarla Lakhawat**

DRI Nominee

**APPROVED**

DIRECTOR RESIDENT INSTRUCTION

MPUAT, UDAIPUR

**MAHARANA PRATAP UNIVERSITY OF AGRICULTURE AND TECHNOLOGY  
COLLEGE OF COMMUNITY AND APPLIED SCIENCES, UDAIPUR**

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This is to certify that **Miss Swati Acharya** student of **Department of Textiles and Apparel Designing**, College of Community and Applied Sciences, Udaipur has made all corrections/modifications in the thesis entitled “**An Exploratory Study on Utilization Pattern of Camel Leather and Problems Faced by the Artisans of Rajasthan**” which was suggested by the external examiner and the advisory committee in the oral examination held on ..... The final copies of the thesis duly bound and corrected were submitted on ..... are enclosed herewith for approval.

**Dr. Sudha Babel**

Major Advisor

**Dr. Meenu Srivastava**

Professor and Head

Department of Textiles and Apparel Designing

MPUAT, Udaipur

**Dr. RituSinghvi**

Dean

College of Community and Applied Sciences,

MPUAT, Udaipur.



**DEPARTMENT OF TEXTILES AND APPAREL DESIGNING,  
COLLEGE OF COMMUNITY AND APPLIED SCIENCES, UDAIPUR  
MAHARANA PRATAP UNIVERSITY OF AGRICULTURE  
AND TECHNOLOGY, UDAIPUR**

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This is to certify that **Miss Swati Acharya** (M.Sc. Scholar) has worked under me on  
**“An Exploratory Study on Utilization Pattern of Camel Leather and Problems Faced by  
the Artisans of Rajasthan.”**

1. I have monitored her research work.
2. My self and the scholar were in contact with the committee members and the research work was reviewed regularly.
3. The advisory committee members have gone through M.Sc. thesis critically and made the corrections as per requirement.

**Dr. Sudha Babel**      Major Advisor



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*I owe a debt of gratitude to **The Almighty** for showering goodwill, blessing and divine favor on me throughout each step of my work.*

*I express my profound sense of gratitude and indebtedness to my revered guide*

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*Place – Udaipur*

*Date-*

**Swati Acharya**

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## INTRODUCTION

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Rajasthan is a state of glorious history, ethnic traditions, vibrant culture and rich heritage. Also known as “Land of Maharajas” or “Land of Kings.” Fairs and festivals are a reflection of diverse social and cultural heritage of the state. Since very long time its being one of the major producer and supplier of handicrafts products.

The Thar Desert in western Rajasthan is the largest desert in India. This great Indian desert or the Thar Desert encompasses about 70% of the total landmass of Rajasthan and hence recognized as the “Desert State of India.” The Thar Desert comprises the districts of Jaisalmer, Barmer, Bikaner and Jodhpur. Rajasthan desert embraces three cities i.e. Jaisalmer, Bikaner and Jodhpur and hence commonly known as the desert triangle. The cultural and historical significance and the glorious ancient past of these cities has marked Rajasthan as “the most colourful desert in the world” (<https://www.mapsofindia.com/maps/rajasthan/geography-history/desert.html>).

Camel and Rajasthan are synonymous as it is officially avowed as the state animal of the state. It has been fondly stated as Ship of the Desert ([wildtravellers.in/2017/08/29/camel-the-cultural-identity-of-rajasthan](http://wildtravellers.in/2017/08/29/camel-the-cultural-identity-of-rajasthan)).

The word camel is derived from Latin word “camelus” meaning camel and more correctly we can call it as “camelid” (<https://en.wikipedia.org/wiki/camel>). They are the hoofed mammals of the Camelidae family and forms the genus camelus also known as Afro-Asiatic Camelids. They have been existing on earth since distant past. They live in desert where the climate is hot and dry. They have a thick coat of hairs on the skin that protects them from the sun and have wide, soft feet, so that they can walk for a long time in the hot sand. Camel can naturally change its body temperature by six degree Celsius. They have been domesticated by humans for about 5000 years. There are two living species of camel which is the Dromedary and the Bactrian camel. The dromedary has one hump and the bactrian has two hump (<https://simple.wikipedia.org/wiki/camel>).

Bikaneri breed of camel is one of the major camel breeds found in India and derived its name from the Bikaner city which was established by the Rao Bika in the 15<sup>th</sup> century. This breed is heavily built and are attractive with a noble look. The colour varies from brown to black and however in some animals reddish tinge is also found. The Jaisalmeri breed is of active temperament and is quite tall with long and



thin legs. This breed covers Jaisalmer, Barmer and part of Jodhpur district in Rajasthan. The body colour is predominantly light brown. They have thin skin and short hairs on body (<https://nrccamel.icar.gov.in/camelbreed.php>).

Camel has a reputable position in the cultural and social life of Rajasthan. The largest camel breeding centre is in Asia and in India only the Bikaner city of Rajasthan has breeding centre. It is a chief source of transport and livelihood. Numerous families below poverty line are dependent on it such as to lift water from deep wells and for processing of camel products lower castes artisans obtain income (Chauhan, 2017). In Rajasthan camel is federated by the people of Raika community. It is considered as the nature's product, right from the earliest civilizations to the present time because of its inherent beauty, universal appeal, prestige, durability, physical properties and eye-appeal (Lopez and Cosp, 2008). This animal held a special place in peoples heart and symbolises love. Without this animal Jaisalmer could never ever been developed as a trade centre. The Rajasthan Tourism Department organizes a camel festival in Jaisalmer and the Marwar festival in Jodhpur which consist of various camel related shows i.e.camel races, camel dancing and camel polo etc (<https://rkvy.nic.in/uploads/Success Story/RAJASTHAN/2018/2018105748Camel%20breeding%20scheme%20-%20PDF.pdf>).

Camel "The Ship of Desert." Earlier it was not only used as a means of transportation in the desert region but was also used as a basis of living and even as a status symbol and also for its hide for making utilitarian products. On the demand of situations the uses of everything certainly changes after a long period of time. As in the same way its utilization has also been changed.

In todays era where in many villages farming is made easy through technically updated machineries and equipment's, there are some villages which are still dependent on buffaloes and camels for ploughing fields and to lift water from deep wells. Enormous efforts have been made by the government to improve the transportation in villages by making cemented roads and joining them with main roads and providing 24x7 bus facilities. Some villages are still lacking such facilities and are dependent on camel for both carriage and as a means of transport. It has found its new utilization in the present scenario from the point of tourism since it is not utilized as in its earlier ways. So, now it is used as the tourist attractions at sand dunes:

as camel safari, camel dance, decorated with beautiful clothes, ornaments and different designs made on it by its fur cutting. Therefore it has become one the largest employment generating sector in the country and plays a vital role in promoting inclusive growth of the less – advantaged sections of the society and poverty reduction.

A cultural event and acamel fair is being organized by the government for the purpose of entertainment and to promote tourism. It depicts our cultural and social heritage is being in existence. It plays significant role in the attraction of foreigners towards Rajasthan. There is no denial in the fact that earlier it was used as a convenience for the villagers and now is used as a source for raising foreign currency. It's the only reason government has declared it as the state animal. However time demands that camel should be made more productive and competitive.

At present there is decline of camel population in Rajasthan due to some diseases,slaughtering, smugglingas there is huge demand for camel meat in Bangladesh and other countries. Raika community known for breeding camel are now leaving its camel because they are not getting any benefit as mentioned above and money spent for there rear and care is high. Ultimately it affects its leather availability too.Regar, Jingar, Gujarare other communities which are involved right from the flaying/skinning, hair removing, dyeing and making finished goods of hides or skin.

The use of leather begun from the time when man hunted wild animals for food. He realized that its skin or hide can be used for clothing and other purposes. We can say from the pre- civilization era man has been using leather i.e. the animal raw hide or skin. The raw hide or skin is processed by tanning as it cannot be used in its raw form because it stinks and gets affected by various types of micro-organisms.

The process of converting raw hides or skins into leather is known as tanning. It has the capability of absorbing tannic acid and other chemical wetting substances that prevent them from decomposing, built resistance glands to wetting and keep them flexible and durable. The inside (flesh) of the hide or skin is more thick and soft (Harmila, 2015). Raw hides when rewetted, it deteriorates and parched to form a rigid and inflexible material; while tanned hides, when rewetted, it does not get rotten and parched to form a flexible material. Therefore it is the key difference between raw and tanned hides (<https://en.wikipedia.org/wiki/leather>).Traditional method is used for

converting raw hides into leather for product making. It consist of collecting raw hide from local market and near by city then soaking, washing, flesh removal, hair removal, drying, softening and oiling. Water, salt, acid, mustard oil and vegetable dyes are used. It's a time consuming process as this process takes about one and one an half month.

Hides are used as significant goods that accomplish various purposes suchas for making ropes, guards, drums,seats, sandals,praying mats, water and milk containers (Kagunaet *al.*, 2013). Raw hides are used for manufacturing lampshades, drum covers and certain types of containers. The Bikaner city has its regional speciality that is the kuppa or kuppi, vessels for oil, ghee and perfume painted in an intricate pattern.

**In this modern epoch, the role of ship of desert is enduring basic changes. Apart form camel leather its hairs are also being used in the textile industry. These fibers (hairs) are either blended with other fibers or with wool and can also be used for weaving and knitting.**

**Camel hair exactly refers to the fur from the camel body, but more usually denote to the fiber (cloth) that may be made from either pure camel hair or a blend of camel hair and another fiber. Camel hair has two components i.e. the guard hair and the undercoat. Guard hair is the external protective fur, which is shaggy and stubborn and can be woven into haircloth. It can be made mushy and luxurious by blending it with another fiber, especially wool. The undercoat is shorter and finer than guard hair. It is soft, less protective but more insulating and used in the making of coats. In a**

year a camel can produce approximately five pounds (2.25 kg) of hair. It is collected by shearing or combing or by hand gathering the fiber that is shed naturally during the sixtoeightweek moulting season in late spring. The coarse and fine hairs are separated after collection and then these fibers are washed to remove dirt or debris before being spun into yarn that is suitable for weaving or knitting ([https://en.wikipedia.org/wiki/camel\\_hair](https://en.wikipedia.org/wiki/camel_hair)).

Good quality camel leather items i.e. *mojari*, wallets, bags, belt, purse, pouch come with a light weight handcrafted and beautifully designed. Before using the leather it is dipped in water to soften it. Stitching is done with cotton threads to provide it strength and keep it natural. Stitching is done manually not with machine because of its thickness. The sewn areas are frequently hammered on the wooden block to firm the joints. Vegetable dyes are used in shades of dark pink, red, brown and green. Embellishment on products is done using delicate embroidery work using silk, metal and embroidery threads, steel buckles, punching designs, applique and pin tucks used for carving holes.

The artisans involved in the process of different leather products belong to the poor sections of scheduled castes and below poverty line like Regar, Mochi, Gujar,

**Jinger and the minor community of Muslims. They are in this work before independence and literacy level among artisans is fifty percent. Most of them learn the work from family member and its being an ancestral profession. The children's of these artisans are not willing to continue this profession due to low-paid that give rise to several problems.**

**In handicraft industry leather is transformed into various good like footwear, portfolios and briefcases, shopping and travelling bags, purses and wallets, pouches, belts, jackets and some stuffed animals are made. So it is used for both decorative and utility purpose ([www.craftandartisans.com/leather](http://www.craftandartisans.com/leather)).**

**The minor industry that is handicraft industry plays an important role in the development of the economy of both developed and developing countries. This industry is highly labour intensive, cottage based and decentralized. It is spread all over the country mainly in rural and urban areas.**

**Handicraft depicts our community and culture. The livelihood of large number of population directly and indirectly depends on it. It plays a significant role for economic growth and upliftment of the rural economy through generation of employment and foreign exchange**

earnings. Further there is need to understand the growth and decline of craft, not only from economic perspective but from a broader livelihood perspective. In order for the optimum study of this handmade industry, government should take steps to provide both incentives and assistance. Along with this, state and central government must increase the wages and improve the working conditions of the artisans, who are involved in these industries (Mohi-ud-din *et al*, 2014).

Over the years enormous pressure has been faced by the Indian handicraft sectors due to the arrival of new merchandized articles as a substitute for the traditional crafts and incur the risk on Indian handicraft products. Manifold obstacles are faced by the handicraft industry i.e. right from the procurement of the raw material due to non – availability of required standard input, unavailability of skilled artisans, unawareness about the technical supports and lack of customer awareness towards the craft products. Information dissemination is one of key issues faced by this sector (Kumar,2014).

Small artisans play a big role in fulfilling the need of the country. Theustaart made on raw camel hide has touched the heights of its perfection in the city of Bikaner itself. The Foreign foreigners who traveled

from every corner of the world are attracted to this craft and tempted to buy these articles even at exorbitant prices. Other articles made from camel leather are also purchased by both Indian and Foreign foreigners as a memory of that place and also for the gifting purpose.

## **JUSTIFICATION OF THE STUDY**

Due to change in lifestyle, numerous artisans, beholding upon a historic past, have vanished from the rural handicrafts in the 1950s and 1960s. The handicraft of Rajasthan which represents glorious traditions have now become slightly outdated or less in demand due to the increase production of mechanized and finished goods. The present study has been undertaken to gather information on existing status and various types of products developed from camel leather and its market potential. Therefore keeping in mind it will not only identify the problems faced by artisans but will also throw light on the various processing techniques in utilization of camel leather.

### **OPERATIONAL DEFINITION-**

- **Utilization** – In the present study the term utilization pattern will be considered as use of Camel leather in handicraftsector.

### **IMPLICATIONS OF THE STUDY-**

- The present study can guide the government officials to identify and rectify the

various problems faced by the camel leather artisans for production and sale.

- The study of utilization pattern and processing technique of camel leather will help in differentiating between original and artificial camel leather.
- The present study will fulfil the need of students, designers, manufacturers to know the production process of Camel leather articles.



## REVIEW OF LITERATURE

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“One of the simplest ways of economising effect in an enquiry is to review and build upon the work already done by others.”

Conducting review of literature is one of the prior step in research work. It give us an overview of the work done previously in the related field and provides insights into methods and procedures. Researcher takes an advantage of the information and knowledge available as it gives an opportunity to modify or alter the work to make it more efficient and better. It keeps us up to date with what is currently going in the field.

Very few studies have been conducted on the topic, however the related literature has been reviewed thoroughly and is presented under the following sections:-

- 2.1 General profile of camel leather artisans
- 2.2 Problems faced by camel leather artisans
- 2.3 Properties of camel hide
- 2.4 Utilization pattern and export of camel leather goods

### 2.1 GENERAL PROFILE OF CAMEL LEATHER ARTISANS

**Singh, *et al.*, (2002)** reported that in Rajasthan the chief communities involved in leather work are spread all over the state, the district of Jaipur, Sawai Madhopur, Nagaur and Jodhpur had the highest concentration of these communities. Regar or Raigar, Khatik, Meghwal, Berwa, Raidas and, in some areas, the Jatavs, which were among the poorest. Generally they are located in villages and small towns.

**Roy, *et al.*, (2010)** reported that leather art has been practiced by families and passed on through generations to generations, almost workers were engaged in this work from childhood; hence, the age group of workers ranges from 25 to 85 years and the workers had been associated with the craft for 10 to 65 years respectively.

**Anonymous (2011)** says that leather of cow, buffalo and camel can be obtained locally and is known as ‘Desi Leather’. To acquire leather the artisans have

beendependent upon the ‘mahajans’ or the ‘middlemen’. The rural and tribal artisans use traditional process and techniques inherited by them from their forefathers in production of goods. Their tools comprise ‘rapi’, ‘aari’, ‘needle’, ‘thread’ and ‘hammer’. There is no enthusiasm amongst the youngsters to do same practice. They are no longer interested in pursuing their career in this field and besides that the work is still looked down upon in the society so the younger generation does not want to associate themselves with the craft any longer.

**Indian Artisans Online (2014)** conducted a report on ‘craft of Jodhpur by Indian Artisans’ summarised that the leather craft is practiced by the jeenger community. Artisans work in small family units. The work is divided according to gender – men do the leather work and women do all the embroidery. Raw material for leather work had become very expensive. Therefore artisans rely not only on selling their products but in trading to make up the margins.

## **2.2 PROBLEMS FACED BY CAMEL LEATHER ARTISANS**

**Anonymous (2010)** quoted the Challenges faced by the Indian Tanneries. These were:

- Increased cost of production per unit area of finished leather due to stringent environmental norms.
- Expansion of production capacities – issue in Tamil Nadu due to local laws, despite compliance.
- Increasing demand of raw material – raw hides, skins and semi-finished leathers.
- Low level of technology in small tanneries.
- There was no specific dedicated industrial areas for leather sector in few States.
- Poor capacity utilization in most tanneries leading to higher financial cost and overheads.

**MeeraSansthan (2011)** reported that in Jodhpur large numbers of Leather clusters occur, but no systematic approach had been adopted for the development of various Leather cluster mainly with reference to technology up-gradation or broadening the marketing base of the product. Entire system of Jodhpur Leather

Cluster was gripped under intermediaries activities that is the reason why actual profit was not going to genuine party. Traders also give loan to the artisans on higher rate of interest and exploit them. There was no direct linkage between artisans, retailers and wholesalers.

**Ghouse (2012)** studied various problems associated with Indian Handicraft Industry where researcher surveyed 78 handicraft exporters. The following problems were reported:

- low/no demand
- lack of access and high cost of raw materials
- obsolete tools & equipment
- licensing problems and high cost of credit
- labour regulations and policy uncertainty
- poor infrastructure and scarcity of skilled labour
- shipping problems
- low subsidy
- income tax and
- market awareness

**Nasr (2015)** focused on thirty one-humped male camel hides at age (24-30 months) which were facing numerous problems in caring and husbandry, which was reflected on their hides quality. In addition, camel hides contained different defects in grain side surface which could be observed clearly after pickling step before tanning. Thus, the classification of pickled pelts is necessary to determine suitable tanning and finishing methods. Also, the diversity in tanning and finishing methods was a good solution to overcome these defects and to produce different articles that could be used in manufacturing of garment, footwear and bags.

**Ali, et al., (2015)** stated that in today's scenario camel raising has no future. Its husbandry must be transformed, and raising shown to be not only socially acceptable, but economically feasible. Like our old cultural values, the traditional role of the camel is disappearing, so new and improved methods of camel raising must be

initiated that will enable man to utilize its natural ability to produce fiber, hides and skins in areas where other animals cannot produce, or produce only with difficulty.

## **2.1 PROPERTIES OF CAMEL HIDE**

**Bhakat and Sahanni (2005)** concluded that the quality of camel skin is unique among the mammals' skin in terms of thickness, toughness and compactness. Moreover, lampshades, drum leather and containers were made using camel hides due to their translucent structure.

**LokhitPashu-PalakSansthan (2010)** conducted a project in Jaisalmer initiated by MITAN Ltd. In Kullu on camel wool. There is a scientific analysis of two samples that indicates a great degree of variation in fiber thickness and a significant proportion of high quality wool. Samples had an average thickness of 23 and 26 micron respectively. The length of the fiber was 5.9 and 5.4 cm respectively. Therefore camel wool needs to be separated by fiber quality. Fine wool being suitable for soft and high quality garments and coarser being used for manufacturing of bags and carpets. As a result, camel wool represent a significant rural employment opportunity, mainly from setting up processing units, but also welcoming additional source of income for the camel breeders.

**Anthony (2011)** quoted that in leather tanning, skins and hides are exposed to different chemical treatments which change its chemical and physical properties.

**Nasr (2011)** stated that the differences between leather properties seemed to be a result of collagen fibers which differs in its woven and crosslink with added chemicals used in tanning such as chrome and fatliquers.

**Denman(2012)**quoted that Camel hide has ten times as many fibres per square centimetre as cow hide, which helps protect the animal in the extreme environments that it traditionally inhabits. "As a result, leather is extremely durable and tough, with a higher tear strength than normal leather."

**Salehi et al, (2013)** stated that there was a significant difference in slaughter weight between the pure Dromedary and its Bactrian crossbred. In addition to that males and females had different carcass weights and wet hides whereas, the difference between males and females regarding the thickness of hide was found to be non-significant. Breaking force, tensile strength and elongation of the leather samples

decreased with increase in their thicknesses. Hence body weight would also result in improved quality of the leather.

**Hekal and Samia (2014)** indicated the possibility of using some camel skin characters such as primary and secondary follicle dimensions in predicting the quality of tanned leather in terms of tensile strength, tearing strength and elongation.

**Nasr (2015)** focused on thirty one-humped male camel hides at age (24-30 months) which were facing numerous problems in caring and husbandry, which was reflected on their hides quality. In addition, camel hides contained different defects in grain side surface which can be observed clearly after pickling step before tanning. Thus, the classification of pickled pelts is necessary to determine suitable tanning and finishing methods. Also, the diversity in tanning and finishing methods was a good solution to overcome these defects and to produce different articles that could be used in manufacturing of garment, footwear and bags.

**Urge, et al., (2015)** conducted an experiment at Erer Guda, Babile district with total sample of 15 healthy growing intact dromedary camels of 2.5-3 years of age and average initial body weight of  $162.8 \pm 23.8$  kg. It aimed at evaluating the effect of concentrate supplementation under feedlot condition on intake, weight gain, physico-mechanical and chemical qualities of crust and finished leather of dromedary camels. The result showed that medium and high level dietary supplementation plus ad-libitum UTMS could be one of the better feeding strategies to improve the growth performance and tear load of the crust and tear resistance of the finished leather qualities of the dromedary camels.

A study was conducted by **Wiam, et al., (2015)** on 6 adult camels to know Skin biopsy from four body sites (Neck, hump, mid-side and thigh). Histology and microscopic measurements were used with various parameters measure like the dimensions of skin thickness (epidermis and dermis) depth, length and diameter of hair follicles, sebaceous glands and sweat glands. It was found that histologically the skin of the camel was similar to that of the other mammals consisting of an epidermis, dermis and hypodermis. Grossly the skin was thickest on the hump (22.65 mm) and neck (20.27 mm) region in the adult camels. Whereas, the mid-side and thigh region had the thinnest ( $9.56 \pm 0.46$  and  $10.44 \pm 0.89$  mm) regions respectively. This was also same for microscopically skin thickness. Along with this the camel skin

was observed to have high densities of hair follicular pin holes depression that lead to the disruption of the grain surface which may detract the quality of leather.

**Gbolagunte(2016)** stated about the dermis of the camel skin (hide) where all the activities concerning to leather processing take place. Histological study of dermis region in the camel revealed that fine collagenous structures in the upper layer laced with numerous elastic fibers. Below this, there was a layer of interconnecting small sheets in form of slabs of collagen. The upper layer, together with a lower layer of larger slabs of almost vertical fibers of collagen, forms the corium proper. These layers are more prominent in the wet blue (early form of leather after tannins have been infused – before final finish). The trio groups of secondary and primary hair follicles do not penetrate too far down into the corium but eventually leave some gap that give the grain (upper part of the leather), a similar appearance to that of goat skin. But the hide of the camel was not as thick as that of Nigerian cattle. Therefore, it may not yield a relatively thick enough grain split and/or, flesh split leather.

## **2.2 UTILIZATION PATTERN AND EXPORT OF CAMEL LEATHER GOODS**

### **A) UTILIZATION PATTERN**

**Anonymous (2010)** conducted a comprehensive study by UNIDO which provides an analysis of the contemporary demand for leather products. The leather goods market is gradually splitting into two major segments: luxury articles and casual products. The design, development and manufacture of such products require large investments, excellent technological control, a high level of know-how (especially in product development and marketing) along with the ability to create and set trends, the availability of a highly skilled workforce, high-performance machinery and raw materials of top quality. Beside these luxury products, there was a wide range of cheap and medium-price articles. Medium-price and cheap items were mostly made of synthetic materials or sometimes from split leather, or cheap, heavily pigmented nappa.

**Garg (2011).** discussed that both men and women were employed in leather industry in the state of Rajasthan. Men undertake tanning of leather while women take on the embroidery and decoration aspect. Decoration is done with sequin, beads, golden and coloured threads. Bikaner and Jaisalmer produce beautiful and robust

saddles made of camel leather while Jodhpur, Barmer and Jaisalmer were known to produce premium quality leather.

**Agarwal (2013)** quoted that **camel leather items** like bags, shoes, wallets and sandals were famous all over the world for their elegance and design. The products stand the joint effort of Rajasthani men and women. Men were involved in tanning, cutting and hemming while women look after the embroidery. The crafting design on the leather items was done by the traditional women. Camel leather is durable and sturdy as, it have ten times more fibers than cowhide which protects the animal against extreme climatic conditions. The unique pattern of the animal leather makes it more attractive. Camel leather '*Mojari*' footwear is designed and embroidered in quiet an artistic manner. It had given a fashionable and highly sophisticated look. Camel leather items are good for gifting because of its uniqueness.

**Ibex Expeditions (2013)** in an article "Footnotes from Jaisalmer" stated that they incorporated a variety of styles and fashioned the leather into belts, shoes, hats and passport holders with beautiful embroidery in a mosaic of colours, patterned with tiny mirrors. In making of these items first leather was beaten and then cut according to desired sizes and shapes and finally stitched with colourful threads. Then expert do *shingar* or decoration of items of camel and then decorated it with embroidery and applique work. The threads weave a subtly coloured pattern and the popular motifs used were brilliantly plumaged peacocks, elephants, flowers and of geometric patterns in a variety of stitches-stem, herring bone, double cross and twisting cross.

**Anonymous. (2015)** discussed that leather craft in Rajasthan mainly constitutes of goods made of camel hide. Bikaner is known as the popular centre where leather goods were manufactured and it is also known for its "kupi", a particular type of leather bottle, beautiful lamp and lampshades made from camel hide. Besides this it is also an essential raw material for making musical instruments like 'Tabla', 'Dhol' and 'Kamaycha'. Rajasthani folk musicians use these instruments. Handbags, saddles, pouches, lampshades, hip flasks, water pots and perfume vases, those were main part of Rajasthan leather craft.

**Kumawat (2017)** stated that the items made out of dead animal skins in Rajasthan were juties, bags, purses, saddles, pouches, chairs, musical instrument and many more and are well-known for their styles, durability, embroidery and

decorativeness. Jaipur, Jodhpur, Jaisalmer and Barmer have been the main centre for leatherwares. Bikaner is famous for its lampshades, shields and vases made out of camel skin and Jaipur and Jodhpur are famous for *juties*.

**Beauty without Cruelty- India. (2018)** reported that Camel hide/skins/leather is considered stronger than bovine hide/leather. Hide is not only commonly used in Rajasthan for slippers/*mojadis* and for *kupis* (decorative painted/embossed bottles for perfume/oil/water) but entire pieces of furniture, bags, doors and artefacts like lampshades, vases and bowls are covered with camel leather and some of which is embossed in gold and other colours but it is also used in Australia for making hats, boots and fashion garments.

## **B. EXPORT**

**Damodaran and Singh (2008)** reveals that leather and leather products industry was one of the India's oldest manufacturing industries that catered to the international market right from the middle of the nineteenth century. It is the top 8<sup>th</sup> export industry earning foreign currency. This sector contributes roughly Rs 10,000 crores per annum, i.e., about 4 per cent to export earnings.

**Ahmad, et al., (2010)** stated that camel hides were used for making shoes and saddles. A hide is commonly sold at Rs. 300 to 550. Its value goes as high as Rs. 3,000 to 5,000 when used for manufacturing table lamps. These products have great export potential.

**Nagori and Saxena(2012)** quoted that rural area is the main source of handicraft items and it require promotional strategies through retail format because it has taken about the easy accessibility of rural craft products in the urban market. It involved the marketing strategies including quality standard delivery schedule, packaging, etc. which provides a unique platform where the buyers and sellers meet and exchanges goods.



## METHODOLOGY

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This chapter deals with the description of an organised course of action for executing the present study in the light of defined objectives. The research procedure has been categorised under the following heads:

**3.1**Locale of the study

**3.2**Selection of the sample

**3.3**Development of research tool and it'sdescription

**3.4**Procedure of datacollection

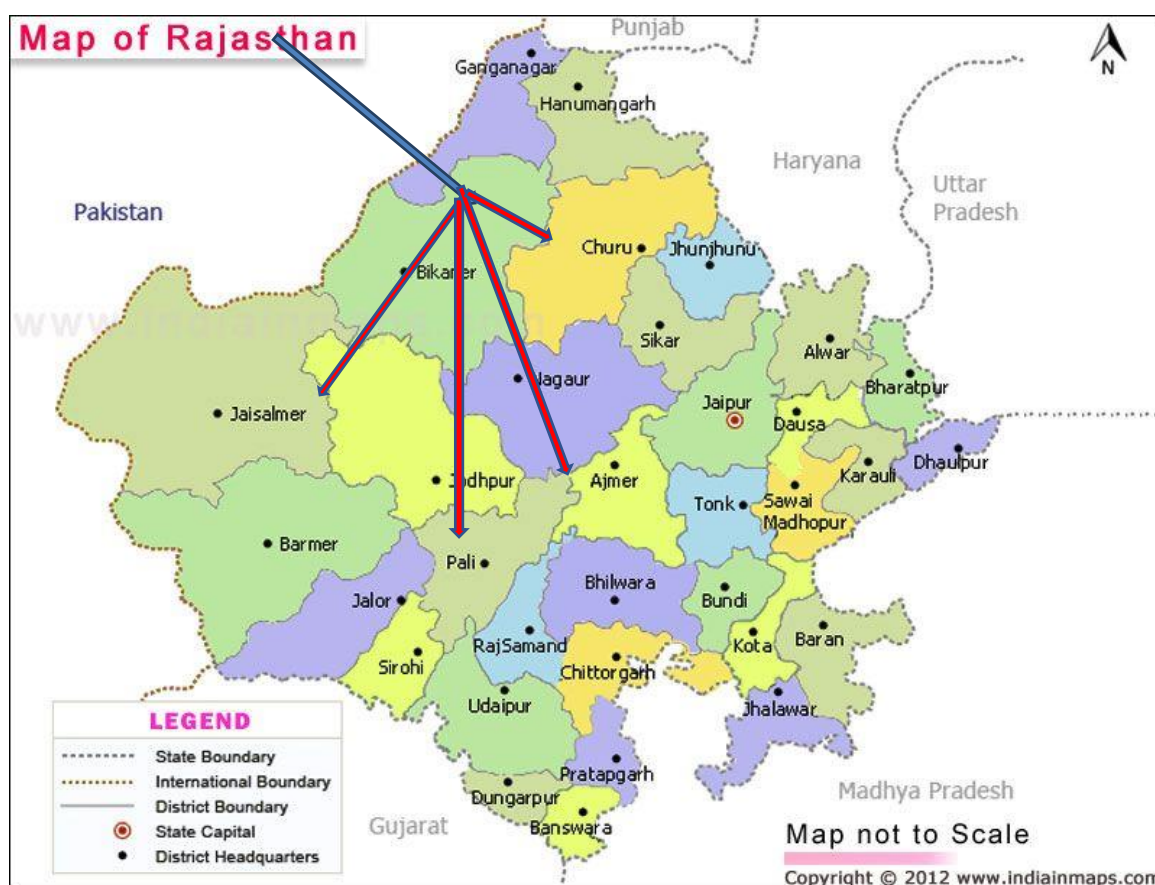
**3.5**Analysis ofdata

**3.6** Existingfacilities

### **3.1 LOCALE OF THE STUDY-**

**The present study was a survey study and was conducted on utilization patter of camel leather and problems faced by artisans. The study was conducted in Bikaner, Barmer, Jaisalmer and Jodhpur district of Rajasthan on the basis of concentration of camel leather artisans in the region. Camel and Rajasthan are synonymous as it is officially avowed as the state animal of the state. The Thar desert comprises of these district and**

encompasses about 70% of the total landmass of Rajasthan.



**Map of Rajasthan**

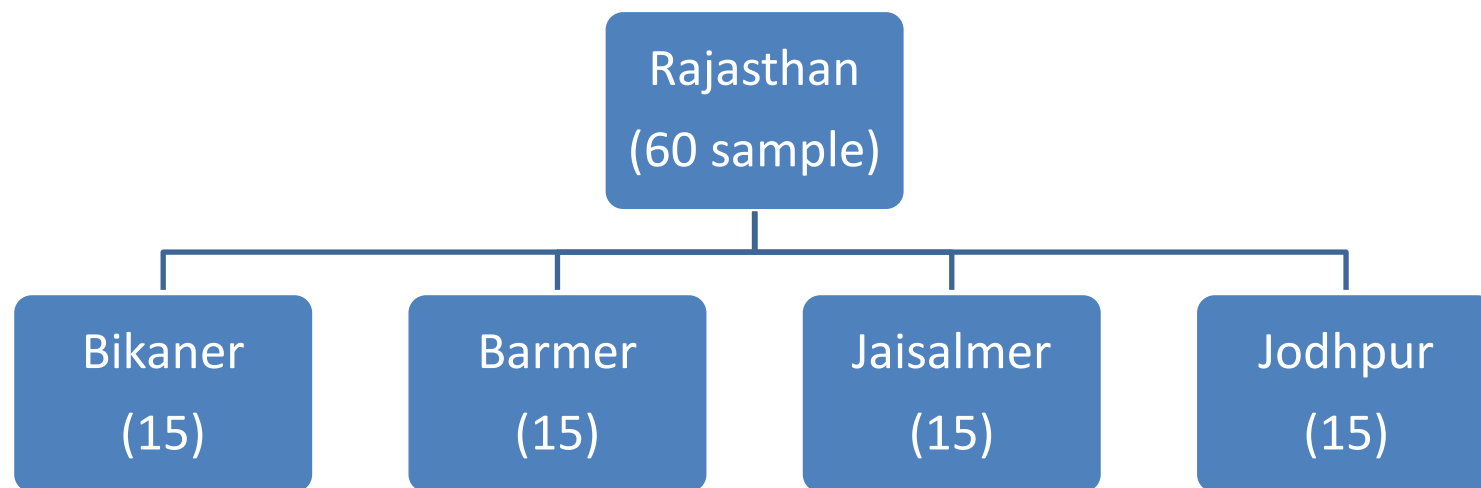
### 3.2 SELECTION OF SAMPLE–

Sample for the present study consisted of sixty respondents from four districts so as to assemble the required information about the utilization pattern of camel leather and problems faced by artisans. Respondents were selected randomly. The sample of fifteen respondents from each four identified districts were selected purposively (Figure 3.1), who was involved in camel leather work directly or indirectly. These

**where whole sellers, retailers, exporters and some tangled in doing all the work together from processing, manufacturing to sales at their own.**

### **3.2.1 SELECTION OF RESPONDENTS-**

**Ainclusive list of camel leather artisans of Bikaner, Barmer, Jaisalmer and Jodhpur districts were prepared by the researcher and from this list fifteen artisans/respondents were selected randomly. From Bikaner district three areas namely Udairamsar village, Ram purabasti and old shiv bari were selected**



**Figure 3.1 Flow Chart Depicting Selection of Sample**

similarly from Barmerfakeerokakuia, Mahavirnagar and jatiyoka baas from Jaisalmerkallokihatto, Mochipada and Gopachowk and from Jodhpur JingarMohalla, Pratapnagar and Bhadvasiyamandi were selected thus making a total of twelve areas for the study. From each area five respondents were selected randomly thus making a total of sixty respondents.

### **3.3 DEVELOPMENT OF RESEARCH TOOL AND ITS DESCRIPTION –**

The present research was based on a descriptive cum exploratory research design. This study includes both qualitative and quantitative data. The quantitative data was derived from a questionnaire method and was considered the most appropriate technique for getting the complete and desired information from the respondents. The structured interview schedule was developed by the researcher after comprehensive review of the available literature and with consultation with subject matter expert. The questionnaire dealt with a section of open-end meant to elicit information regarding their view on various products made and problems faced by the camel leather artisans. It consists of five sections:

**Section-I:** This section dealt with profile of respondents and includes information about age, gender, family type and size, caste, level of education, their association with

**this craft and their experience and other variables of interest in the study.**

**Section-II: It includes questions pertaining to availability of camel leather after declaring camel as a state animal. Questions regarding source of raw material, price, public demand, etc.**

**Section-III: This section includes information related to processing of camel leather like method used, eco-friendly, time consuming, cost effective etc.**

**Section-IV: This portion of tool dealt with information regarding utilization pattern of camel leather, different products prepared, monthly production, procurements of order, market demand, etc.**

**Section-V: This section was designed specially to seek out all the possible constraints faced by artisans.**

### **3.4 PROCEDURE OF DATA COLLECTION-**

**Data collection was done through structured interview technique for the purpose of gathering desired information from the respondents to maintain the integrity of research. The respondents was interviewed individually at their own place and local language was used as an when required. The purpose of the study was made clear to the respondents to gather the clear and correct information. Each interview took approximately one and a half hour.**

### **3.5 ANALYSIS OF DATA-**

**The collected data obtained from the survey was coded, tabulated and expressed in frequency and percentage in accordance with the objectives of the study to arrive at meaningful and relevant interferences.**

- 1) Coding: After categorization, coding were done as per the determine code characteristics for response through coding sheet.**
- 2) Tabulation: the coded data was decoded by transforming it from code sheet to comprehensive tables and analyzed for suitable statistical treatment in light of objectives of the research.**
- 3) Frequency: The qualitative data were quantified by calculating and expressed in frequency.**
- 4) Percentage: Data were tabulated according to frequency and converted into percentage.**

$$\text{Percentage} = \frac{\text{Frequency}}{\text{Total No. of Respondents}} \times 100$$

### **3.6 Facilities available**

**All the facilities available at College of Community and Applied Sciences, Udaipur will be used for conducting the proposed study.**

## **RESULT AND DISCUSSION**

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This chapter of the study sets forth clearly and precisely the findings and interpretation in the context of major objectives of the investigation, thus providing a bird eye view of the complete study which makes this chapter the most significant and crucial part of the research work. The data have been organized by taking into account the objectives of the study. All the pertinent information has been reported under the following major sections:-

### **4.1 General profile of the respondents**

### **4.2 Specific information of the respondents**

### **4.3 Camel leather availability and its price**

### **4.4 Declaring camel as a state animal and its effect**

### **4.5 Processing of camel leather**

### **4.6 Utilization pattern of camel leather**

### **4.7 Production**

### **4.8 Problems faced by the artisans of Rajasthan**

## **4.1 GENERAL PROFILE OF THE RESPONDENTS**

This section deals with the general background information of the respondents and was collected through a structured interview schedule. Information was collected and analysed in terms of age, family type, family size, education, caste and monthly income and has been recapitulated to depict a clear picture of sample under study.

The absolute frequency and percentage of the respondents according to each of the above mentioned factor are given in tables and described briefly.

### **A) Age:**

The age wise distribution of the respondents has been presented in Table 4.1.



**Table 4.1 Distribution of respondents by the age****n=60**

Age (In Years)	Respondents								Total	
	Bikaner		Barmer		Jaisalmer		Jodhpur			
	F	%	F	%	F	%	F	%	F	%
30-45	8	53.33	1	6.67	6	40	5	33.33	20	33.33
45-60	6	40	10	66.67	7	46.67	7	46.67	30	50
60-75	1	6.67	4	26.67	2	13.33	3	20	10	16.67

The data in Table 4.1 shows that in Bikaner, Barmer, Jaisalmer and Jodhpur district there are young as well as old camel leather artisans working for livelihood. It reveals that fifty per cent of the respondents (50%) belonged to the age group of 45-60 years while one third (33.33%) falling in the age group of 30-45 years. There were 16.67 per cent respondents who were under the age group of 60-75 years and this was very low.

#### **B) Education:**

Literacy rate of the sample artisans of camel leather workers was observed by the researcher in study area. The education is the utmost important determinants of a persons social status. On the basis of their educational level the respondents were categorised in Table 4.2.

**Table 4.2 Distribution of respondents by the education****n=60**

Education	Respondents								Total	
	Bikaner		Barmer		Jaisalmer		Jodhpur			
	F	%	F	%	F	%	F	%	F	%
Illiterate	7	46.66	10	66.67	6	40	7	46.66	30	50
Can read and write	0	0	0	0	0	0	0	0	0	0
Up to primary school	2	13.33	4	26.67	2	13.33	4	26.66	12	20
Up to middle school	3	20	0	0	6	40	4	26.66	13	21.66
Up to high school	2	13.33	0	0	1	6.66	0	0	3	5
Graduate and above	1	6.66	1	6.66	0	0	0	0	2	3.33

The most important variable which helps to understand the development of any community or working group. Table 4.2 reveals that about one half of the respondents (50%) are illiterate. More than one fifth of the respondents (21.66%) had education up to middle school. Only 3.33 per cent have attained the education up to college level and above. It shows the lack of awareness about the education among the respondents.

### C) Caste:

The data in Table 4.3 clearly depicts the majority of respondents involved in camel leather craft belonged to Regar, Jingar, Khatri, Gujar and Muslim caste.

**Table 4.3 Distribution of respondents by the caste**

**n=60**

Caste	Respondents								Total	
	Bikaner		Barmer		Jaisalmer		Jodhpur			
	F	%	F	%	F	%	F	%	F	%
Muslim	6	40	0	0	0	0	0	0	6	10
Regar	9	60	9	60	0	0	0	0	18	30
Jingar	0	0	6	40	11	73.33	10	66.66	27	45
Khatri	0	0	0	0	4	26.66	0	0	4	6.66
Gujar	0	0	0	0	0	0	5	33.33	5	8.33

Data in Table 4.3 further depicts that majority of respondents (73.33%) of Jaisalmer and (66.66%) of Jodhpur and 40 per cent of Barmer belonged to scheduled castes i.e. Jingar. In Jodhpur and Jaisalmer few respondents (26.66%) and (33.33%) belonged to scheduled castes i.e. Khatri and Gujar. More than one half of the respondents (60%) of Barmer and Bikaner belonged to the scheduled castes i.e. Regar, further 40 per cent respondents belonged to minority community i.e. Muslim.

*Indian Artisans Online* (2014) in ‘craft of Jodhpur by Indian Artisans’ reported the leather craft is practiced by the Jeengar community.

### D) Monthly income:

The living condition of the camel leather artisans is known through its family income. Table 4.4 reveals that distribution of artisans on the basis of the family income. Data indicate that maximum number of respondents (43.33%) had monthly

income between Rs 1,500-5,000. 26.67% of respondents had monthly income between Rs 5,000-10,000. One sixth of the respondents (16.67%) fall between Rs 10,000-15,000 per month. Few respondents (13.33%) lies in the category of monthly income above Rs 15,000.

**Table 4.4 Distribution of respondents by the monthly income**

**n=60**

Monthly income  (Rs.)	Respondents								Total	
	Bikaner		Barmer		Jaisalmer		Jodhpur			
	F	%	F	%	F	%	F	%	F	%
15,00-5,000	5	33.33	7	46.66	6	40	8	53.33	26	43.33
5,000-10,000	3	20	4	26.66	5	33.33	4	26.66	16	26.67
10,000-15,000	2	13.33	2	13.33	3	20	3	20	10	16.67
Above 15,000	5	33.33	2	13.33	1	6.66	0	0	8	13.33

#### **E) Family structure:**

It refers to the composition of the family and total members in the family. In determining the socio-economic condition of an individual the size of his family is an important measure. Distribution of respondents has been presented in Table 4.5.

**Table 4.5 Distribution of respondents by the family type and size**

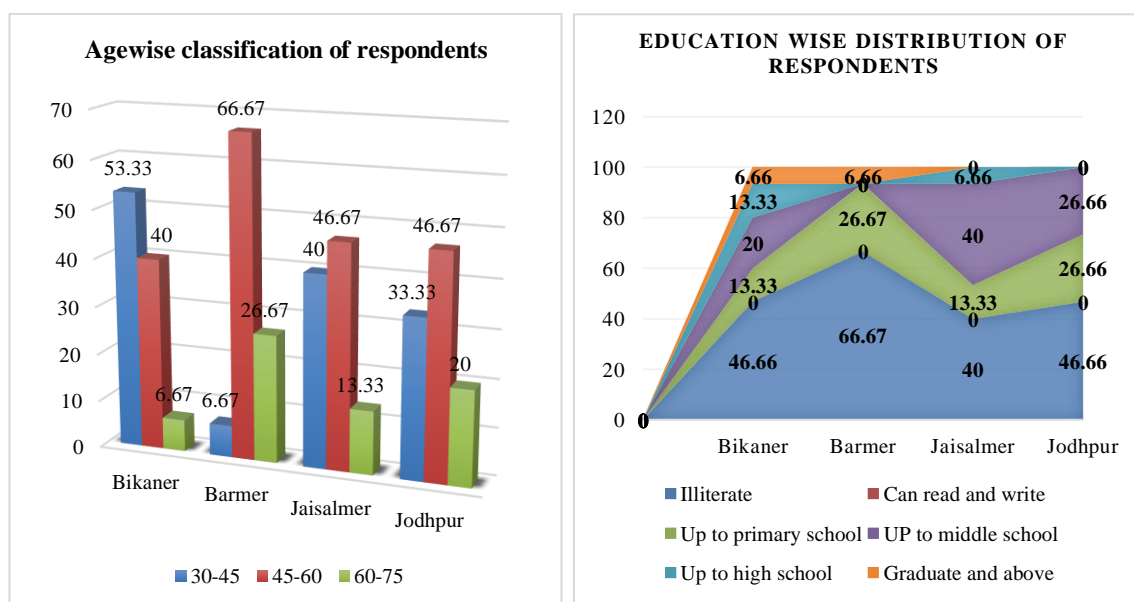
**n=60**

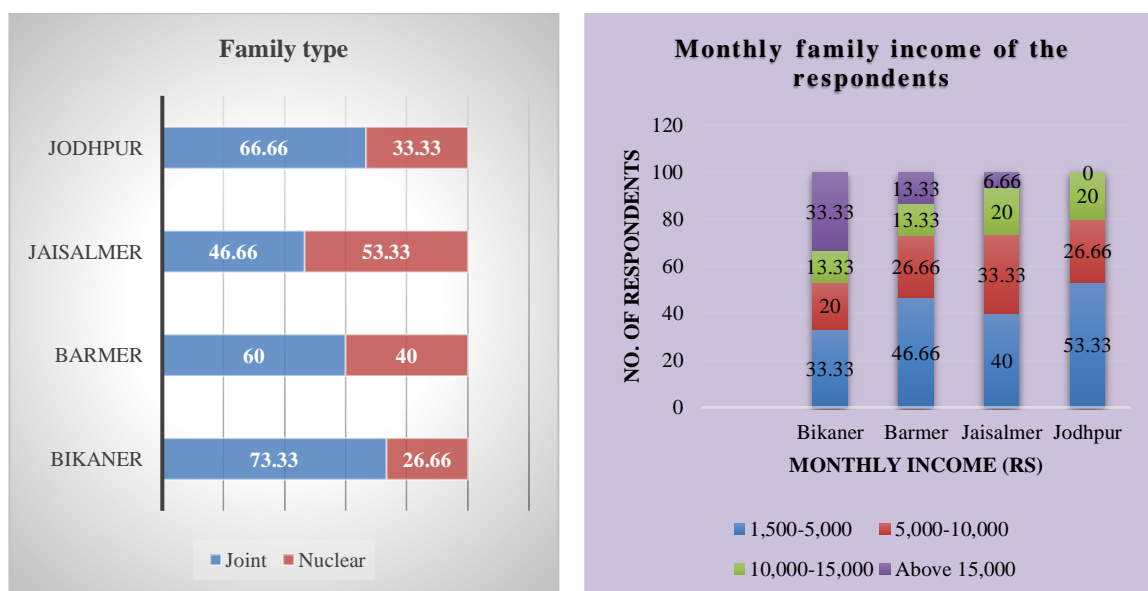
Aspect	Category	Respondents								Total	
		Bikaner		Barmer		Jaisalmer		Jodhpur			
		F	%	F	%	F	%	F	%	F	%
Family type	Joint	11	73.33	9	60	7	46.66	10	66.66	37	61.67
	Nuclear	4	26.66	6	40	8	53.33	5	33.33	23	38.33
Family size	Small (up to 4 members)	3	20	3	20	6	40	4	26.66	16	26.67
	Medium (5-8	11	73.33	10	66.66	9	60	11	73.33	41	68.33

	members)										
	Large (above 8)	1	6.66	2	13.33	0	0	0	0	3	5

According to the data, proportion of joint family is higher than the nuclear family. Traditional profession of camel leather artisans follows their joint family nature and it highlighted the strength of its (66.67%) and rest of respondents belonged to nuclear family.

The Table 4.5 further shows that 68.33 per cent of the respondents belonged to medium sized family i.e. family with up to five to eight members, which includes non-productive members also. 26.67 per cent of the respondents had small size family i.e. family with up to four members. Rest of the respondents (5%) had fairly large family size having eight and more members.





**Fig.4.1: Graphic illustration of the General information of respondents**

## 4.2 SPECIFIC INFORMATION OF THE RESPONDENTS

The entire sample of respondents selected for the present research study inbred this art from fathers and fore fathers. Therefore it was more or less an inbred art. Different aspects were studied to find out specific information of the respondents involved in camel leather craft.

### A) Entry age in camel leather craft

In retort to the questions concerning the age at which started working on camel leather. It was seen that most of the respondents have been doing this work right from the childhood and slowly mastered this art through guidance, practice and experience.

**Table 4.6 Distribution of respondents by age at which started work**

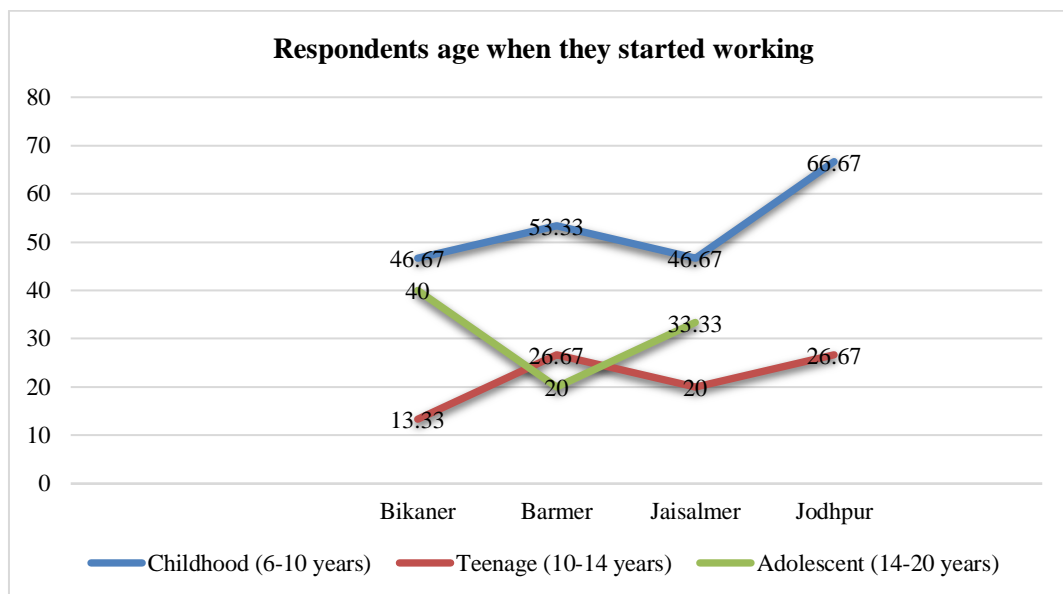
**n=60**

Age Level	Respondents								Total	
	Bikaner		Barmer		Jaisalmer		Jodhpur			
	F	%	F	%	F	%	F	%	F	%
Childhood (6-10 yrs.)	7	46.67	8	53.33	7	46.67	10	66.67	32	53.33

<b>Teenage (10-14 yrs.)</b>	2	13.33	4	26.67	3	20	4	26.67	13	21.67
<b>Adolescent (14-20 yrs.)</b>	6	40	3	20	5	33.33	1	6.67	15	25

The Table 4.6 discloses the entry age of majority of the respondents (53.33%) in camel leather work and was found below 10 years i.e. childhood age they only assist their elders in completing the work. Teenage (21.67%) and the remaining respondents (25%) were associated with adolescent period may be due to pursuing higher education.

The verdict of the study were in consonance with Roy *et al.* (2010) who reported that almost workers are engaged in this work from childhood; hence, the age group of workers ranges from 25 to 85 years and the workers have been associated with the craft for 10 to 65 years respectively.



**Fig.4.2: Distribution of respondents by age at which they started working**

## B) Family occupation

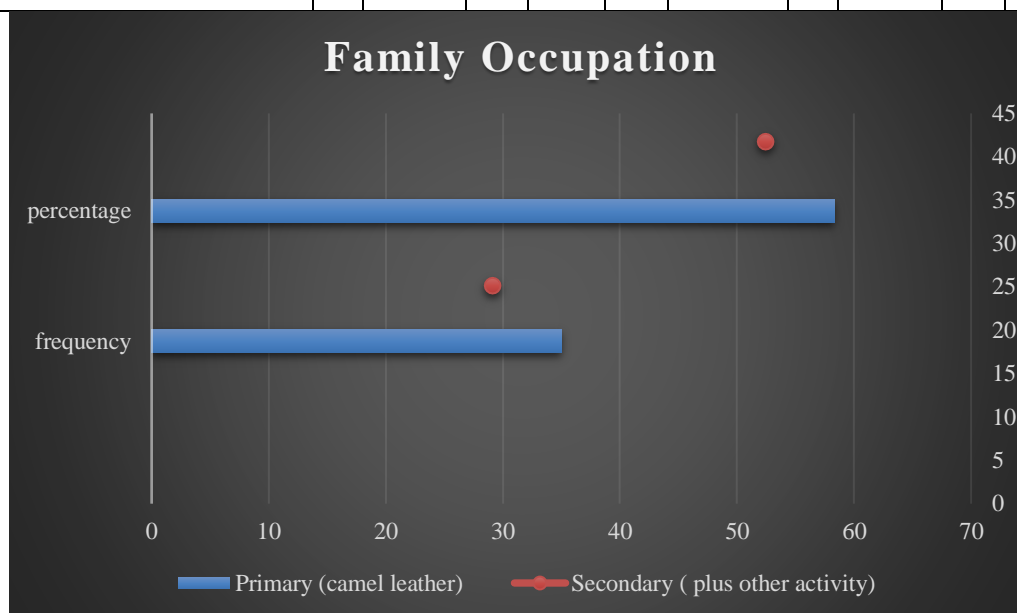
It is important to know the occupational dependency of the respondents to evaluate livelihood in study area. Table 4.7 shows the primary and secondary family occupation of all the respondents. 58.33% of the respondents considered camel leather work as their main occupation; the only source of livelihood and the skills had been

derived hereditarily. However 4.1% were involved in some other occupation i.e. secondary occupation. After having discussion with the respondents at the time of interview it was found that due to low earning of artisan's, the family members were found to be engaged in some other occupation. Hence compelled children to migrate and opt for other professions.

**Table 4.7 Distribution of respondents by the family occupation**

**n=60**

Family Occupation	Respondents								Total	
	Bikaner		Barmer		Jaisalmer		Jodhpur			
	F	%	F	%	F	%	F	%	F	%
Primary (Camel leather work)	8	53.33	9	60	10	66.67	8	53.33	35	58.33
Secondary (other activities)	7	46.67	6	40	5	33.33	7	46.67	25	41.67



**Fig. 4.3 Distribution of respondents by family occupation**

### **C) Involvement of women in camel leather crafts**

It was revealed during the data collection that respondents wife's were also involved in production work. Major tasks in the production process involves men, however, majority of women after completing the daily household works i.e. cooking, childcare, washing etc do involve in the critical stages of the process such as delicate

embroidery work, punching as well as the cutting of different products made by the artisans. Decision making is important in any occupation. It was found that large number of artisans take advice from family members in business.

The findings of the study were in consonance with Garg. (2011) who reported that both men and women are involved in leather work. Tanning of leather is done by men while women look on the embroidery and decoration aspect.

The results are in conformity with the finding of Indian Artisans Online (2014) in ‘Craft of Jodhpur by Indian Artisans’ who reported that in leather craft work is divided according to gender. Leather work done by men and embroidery work done by women.

Similar were the findings of Agarwal (2013) who reported that the finished camel leather products are the joint efforts of both Rajasthani men and women. Men are tangled in tanning, cutting and hemming while women is involved in embroidery.



#### D) Time spent on camel leatherwork

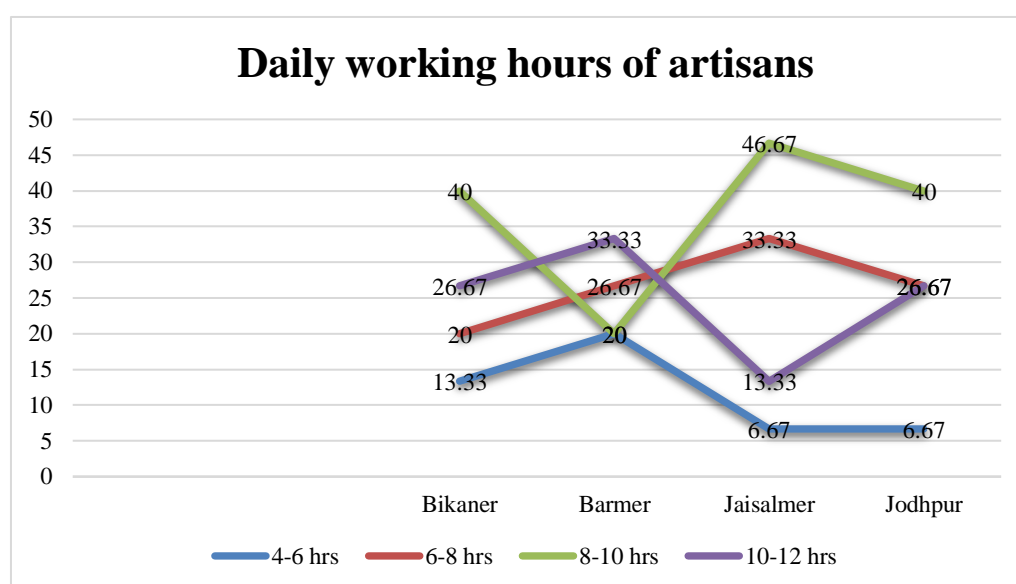
The respondents exclusively devoted to this ancestral profession worked on full time basis. Some artisans work on part time basis. It was reported by respondents during informal discussions that non availability of raw material, high cost of raw material in some other cases also results in breakage of employment consistency. Therefore, indirectly the camel leather artisans engaged in this work are forced to work in other fields.

**Table 4.8 Distribution of respondents by time spent**

**n=60**

Time spent (hours/day)	Respondents								Total	
	Bikaner		Barmer		Jaisalmer		Jodhpur			
	F	%	F	%	F	%	F	%	F	%
4-6 hrs	2	13.33	3	20	1	6.67	1	6.67	7	11.67
6-8 hrs	3	20	4	26.67	5	33.33	4	26.67	16	26.67
8-10 hrs	6	40	3	20	7	46.67	6	40	22	36.66
10-12 hrs	4	26.67	5	33.33	2	13.33	4	26.67	15	25

Perusal of data in table 4.8 reveals that distribution of respondents on the basis of working hours. 36.66 per cent respondents work 8-10 hours/day. 26.67 per cent of the respondents work within 6-8 hours and 11.67 per cent spend 4-6 per cent hours in leather work per day. As the nature of wage payment is on per piece. Overtime work will enable them to earn more. Though the 25 per cent of the respondents willingness to work more than 10 hours/day.



**Fig. 4.4 Distribution of respondents by daily working hours of artisans**

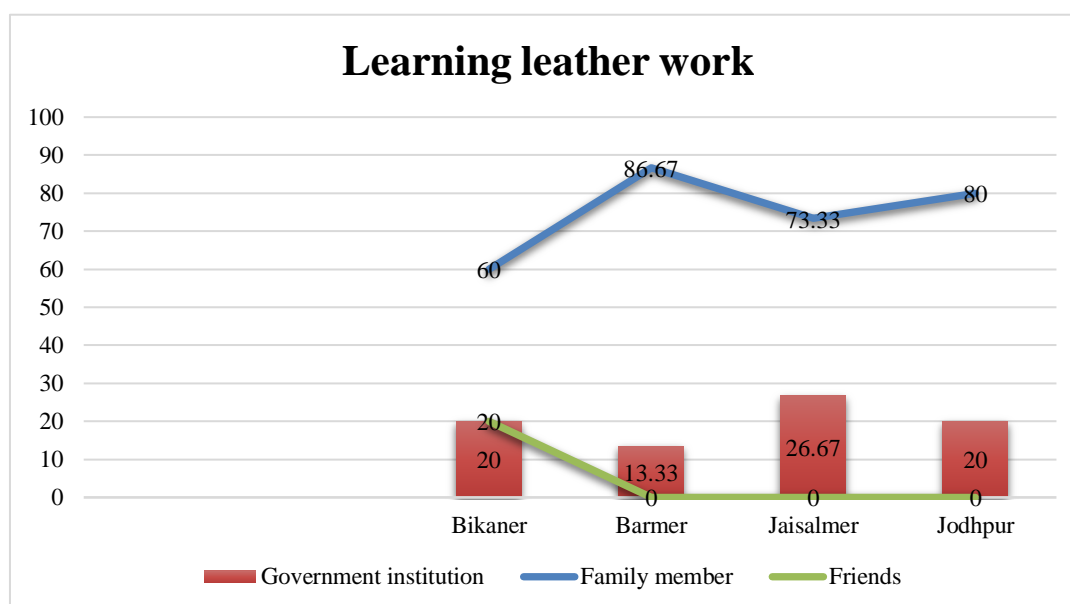
## E) Trainings Undertaken

**Table 4.9 Distribution of respondents by trainings undertaken**

**n=60**

Trainings undertaken	Respondents								Total	
	Bikaner		Barmer		Jaisalmer		Jodhpur			
	F	%	F	%	F	%	F	%	F	%
Family member	9	60	13	86.67	11	73.33	12	80	45	75
Government institution	3	20	2	13.33	4	26.67	3	20	12	20
Friends	3	20	0	0	0	0	0	0	3	5

Table 4.9 shows that 75% of the respondents stated learnt the work from the family members as its being traditional family occupation. 20% of the respondents had acquired training through government institution and the remaining 5% respondents work through friends, observation and practice.



**Fig. 4.5 Distribution of respondents by training undertaken**

### 4.3 CAMEL LEATHER AVAILABILITY AND ITS PRICE

#### A) Source of camel leather

Livestock plays a vital role as it's the basic need. Raw hides come from livestock. It is clear from the table 4.10 that cent per cent of respondents get raw camel *chamra*(camel skin) after the natural death of camel and not by manual killing.

**Table 4.10 Distribution of respondents by their sources of camel leather**

**n=60**

Source of camel leather	Respondents								Total	
	Bikaner		Barmer		Jaisalmer		Jodhpur			
	F	%	F	%	F	%	F	%	F	%
By natural death	15	100	15	100	15	100	15	100	60	100
By manual killing	0	0	0	0	0	0	0	0	0	0

#### B) Sources of raw material

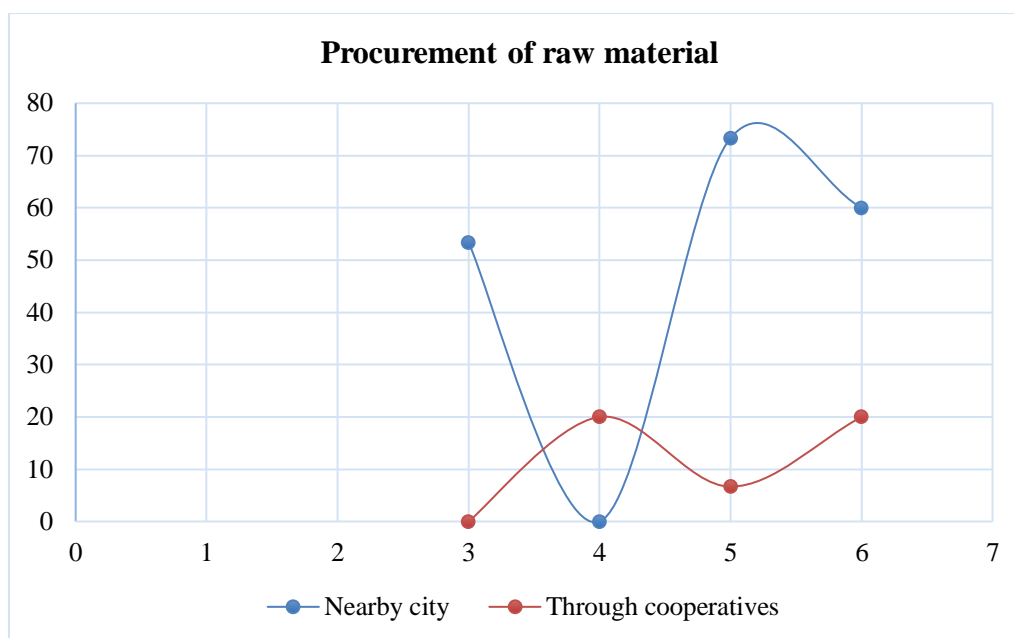
In response to the questions about place of procurement of raw material, it was found that respondents used to purchase raw material from Udairamsar village, Barmer, local market, nearby city and through cooperatives.

**Table 4.11 Distribution of respondents by procurement of raw material**

**n=60**

Procurement of raw material	Respondents								Total	
	Bikaner		Barmer		Jaisalmer		Jodhpur			
	F	%	F	%	F	%	F	%	F	%
Local market		46.67	12	80	3	20	3	20	25	41.67
Nearby city	8	53.33	0	0	11	73.33	9	60	28	46.67
Through cooperatives	0	0	3	20	1	6.67	3	20	7	11.67

The data presented in Table 4.11 shows that more than four ninth of the respondents (46.67%) procure camel *chamra*(camel skin) from nearby city though 41.67% of the respondents procure from local market. The remaining 11.67% of the respondents procure camel *chamra* (camel skin) through cooperatives.



**Fig. 4.6 Distribution of respondents by procurement of raw material**

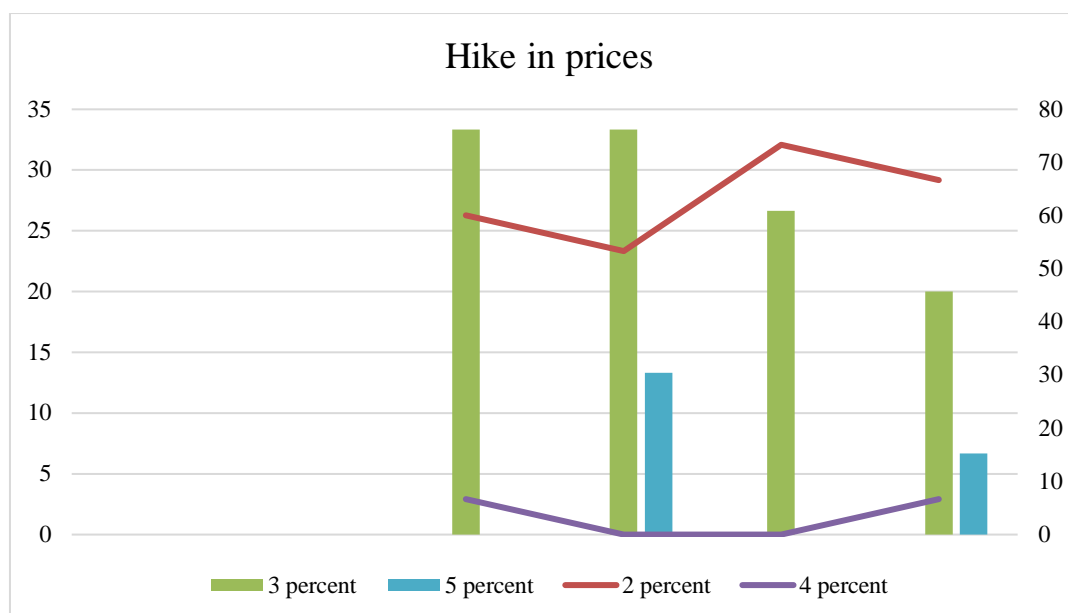
### C) Hike in price of raw camel leather after declaring it as state animal

**Table 4.12 Distribution of respondents by hike in prices of camel leather**

**n=60**

By hike in prices	Respondents								Total	
	Bikaner		Barmer		Jaisalmer		Jodhpur			
	F	%	F	%	F	%	F	%	F	%
Increased by 2%	9	60	8	53.33	11	73.33	10	66.67	38	63.33
Increased by 3%	5	33.33	5	33.33	4	26.67	3	20	17	28.33
Increased by 4%	1	6.67	0	0	0	0	1	6.67	2	3.33
Increased by 5%	0	0	2	13.33	0	0	1	6.67	3	5

Perusal of data in table 4.12 reveals that of 60 sample of camel leather artisans in which 38 (63.33%) and 17 (28.33%) of camel leather artisans experience 2% and 3% respectively hike in prices of raw camel leather after declaring camel as state animal. 3 (5%) of camel leather artisans experience 5% hike in prices of raw camel leather though the remaining 2 (3.33%) of camel leather artisans experience 4% hike in prices of raw camel leather.



**Fig. 4.7 Distribution of respondents by hike in prices of camel leather**

#### **D) Alternative for camel leather in the market**

Camel leather is principally known for its tensile strength, its grain pattern, toughness and its durability. The investigation done by the researcher revealed that there is less availability of camel leather due to less population and less mortality rate of camel.

**Table 4.13 Distribution of respondents by alternative for camel leather**

**n=60**

Alternative for camel leather	Respondents								Total	
	Bikaner		Barmer		Jaisalmer		Jodhpur			
	F	%	F	%	F	%	F	%	F	%
Yes	15	100	15	100	15	100	15	100	60	100
No	0	0	0	0	0	0	0	0	0	0

Table 4.13 clearly indicates that cent per cent of respondents have found alternative for camel leather.

#### 4.4 DECLARING CAMEL AS A STATE ANIMAL AND ITS EFFECT

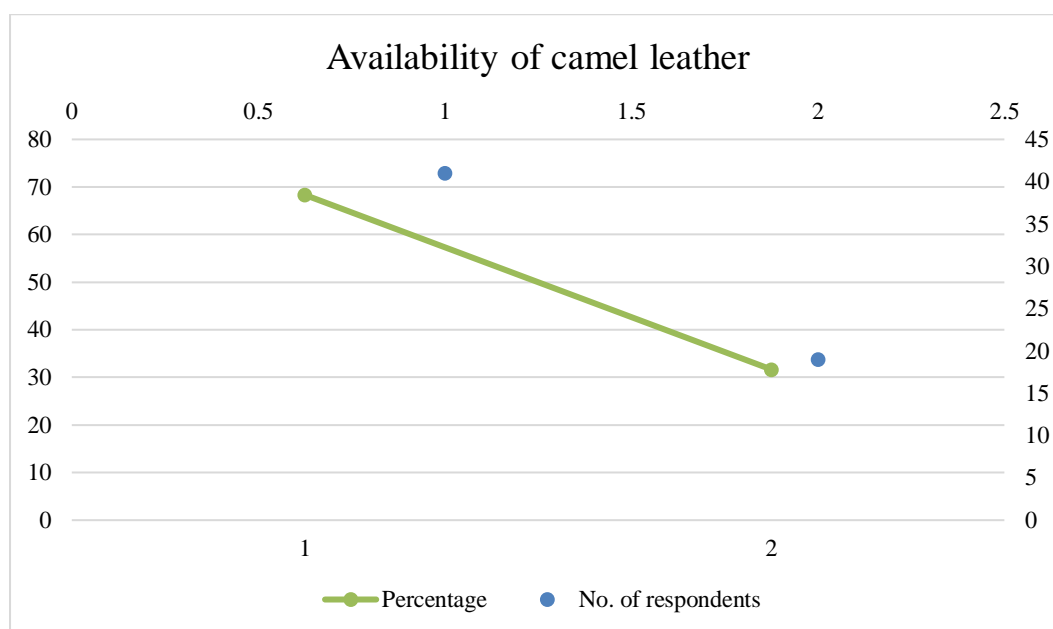
##### A) Availability

In response to the question about the availability of camel leather after declaring camel as a state animal. The table 4.14 revealed that 68.33% of the respondents experience less availability of camel leather due to decline in population, prohibition on slaughtering and low mortality rate.

**Table 4.14 Distribution of respondents by experiencing less availability of camel leather**

**n=60**

Availability of camel leather	Respondents								Total	
	Bikaner		Barmer		Jaisalmer		Jodhpur			
	F	%	F	%	F	%	F	%	F	%
Yes	8	53.33	12	80	10	66.67	11	73.33	41	68.33
NO	7	46.67	3	20	5	33.33	4	26.67	19	31.67



**Fig. 4.8 Distribution of respondents by experiencing less availability of camel leather**

## B) Skilful/alternative opportunity provided by government

**Table 4.15 Skilful/alternative opportunity to camel leather artisans**

**n=60**

Alternative for camel leather	Respondents								Total	
	Bikaner		Barmer		Jaisalmer		Jodhpur			
	F	%	F	%	F	%	F	%	F	%
Yes	0	0	0	0	0	0	0	0	0	0
No	15	100	15	100	15	100	15	100	60	100

It is clear from the table that cent per cent respondents (camel leather artisans) had not acquired any skilful/alternative opportunity provided by the government for better livelihood.

## C) Respondents opinion about declaration

Through investigation the researcher found that the declaration of camel as a state animal by government of Rajasthan has no longer benefited the camel breeders. The conditions of the camel breeders is becoming worse day by day as they are unable to sell the natural products obtained from the camel housed and brought by them. Community rearing the camel mainly the Raikas having vast knowledge on camel rearing is no longer able to transfer this legacy of knowledge to their next generation. The law amended by the legislative assembly (The Rajasthan Camel Prohibition of Slaughter and Regulation of Temporary Migration or Export Bill, 2015) has made the camel breeders virtually cry, as by the norms of this law it is prohibited to take camels out of Rajasthan. The idea of government of Rajasthan declaring camel as a state animal is great, but futile unless coupled with supportive measures.

## D) Effect on trade of camel leather for foreigners

Trade is a commercial transaction involving the buying and selling of goods and services in market or having trade with foreign countries. A system that allows trade is known as market.





**Table 4.16 Distribution of respondents by effect on trade for foreigners after declaring camel as state animal**

**n=60**

Effect on trade	Respondents								Total	
	Bikaner		Barmer		Jaisalmer		Jodhpur			
	F	%	F	%	F	%	F	%	F	%
Yes	0	0	0	0	0	0	0	0	0	0
No	15	100	15	100	15	100	15	100	60	100

Perusal of data in table 4.16 shows that cent per cent of respondents state that after declaring camel as a state animal it doesnot affect the trade of camel leather for foreigners.

#### **F) Change in demand**

The data regarding changes in public demand of camel leather has been presented in table 4.17. cent per cent of respondents reported that there has been no considerable change in public demand of camel leather after declaring as a state animal.

**Table 4.17 Distribution of respondents by change in demand**

**n=60**

Change in demand	Respondents								Total	
	Bikaner		Barmer		Jaisalmer		Jodhpur			
	F	%	F	%	F	%	F	%	F	%
Yes	0	0	0	0	0	0	0	0	0	0
No	15	100	15	100	15	100	15	100	60	100

## **4.5 PROCESSING OF CAMEL LEATHER**

The hides/skin of camels have excellent properties of leather making. The traditional methods are used in processing of camel hides. The materials required for processing are all easily/locally available in the market. These processes are complex and lengthy involving large number of operations and labour. In modern era machine have made the work easier but processing of camel hides are exception. The thickness of the camel hide are more as compared to the other animals hides. Therefore these hides are processed manually. This method is not cost effective, time consuming and the traditional processing is not eco-friendly, it affects our environment and the people living nearby areas. Following are the steps involved in processing of camel hides/skins:-

### **1) Flaying**

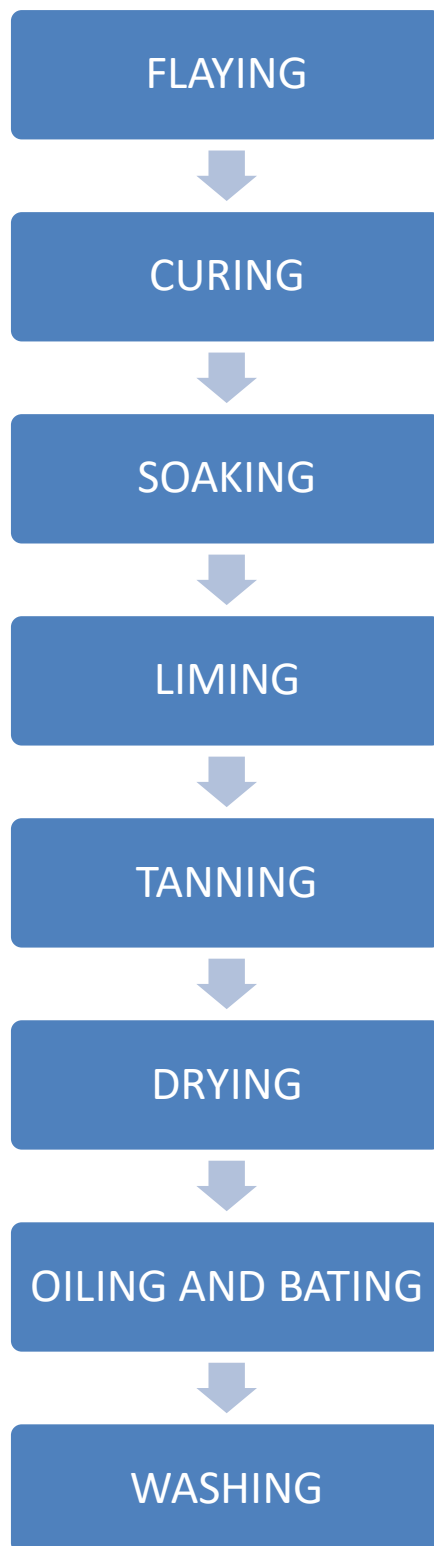
The raw camel hides/skins are procured when camel die due to old age, disease or by accident. Generally flaying is done manually by the people who are engaged in this business of collection of raw hides. Basically the hides/skins measure between 18 and 25 square feet and its weight up to 35 kg, too heavy to handle properly if in one piece.

### **2) Curing**

Removal of raw hides or skins from the carcass of the animal is treated with common salt to avoid bacterial attack or to prevent them from putrefaction. About one kilogram of salt per kilogram of hide is sprinkled onto the fresh surface of the hide, which ultimately reduces the water content of the hide as well as lowers the water activity of the remaining moisture.

### **3) Soaking**

Soaking operation is performed either in pits or paddles constructed above the ground with suitable outlet of waste into an underground drain. This rehydration process uses common salt, some wetting agent. Overnight soaking of salted hides is carried till the hide become soft, pliable, able to dissolve the proteins such as albumins, globulins, mucins and mucoid etc and to prevent bacterial attack. It is better to wash hide in fresh water prior to soaking to remove adhering dirt, blood and other impurities. Sometimes one more wash is given after soaking so as to ensure sufficient soaking followed by liming.



**Fig. 4.9 Flow chart of processing of camel leather**

#### **4) Liming**

Soaking followed by liming intended to remove the hair and flesh and to open up the fibre structures of the skins/hides by suitable plumping and swelling. It consists of hide soaked in a mixture of lime and sodium sulphide for fifteen to twenty days results in removal of hair and flesh i.e. the adipose tissue which is not a part of hide but a loose connective layer lying between the true skin (corium) and actual body muscles of the camel. This is done by scrapping the hides with blunt knives. After the removal of hair, hides are re-limed in order to open up the fibre structure.

#### **5) Tanning**

The process of converting raw hide/skin into leather is known as tanning. Vegetable tanning the oldest tanning method used by workers for tanning the hides. Extracts are taken from the parts of plants i.e. babul husk. The extracted material is processed into tanning liquors and the hides are soaked in pit for fifteen days. After fifteen days remove the hide and again dip the hide for fifteen days in same solution.

#### **6) Drying**

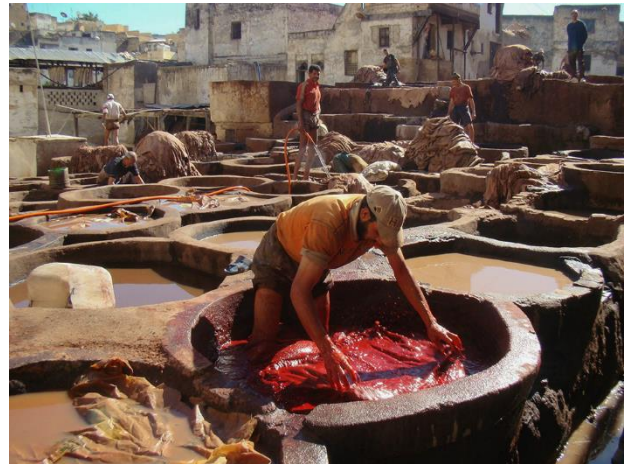
Removal of water from the hides is known as drying. It is achieved by various methods:- by hanging, drying tunnels, drying machines, high-frequency drying, drying in the sun and many more. Sun drying was logically one of the first drying methods used by mankind but it maintained its position for centuries. The leather is dried by hanging on the ropes under the sun and this process can take up two to three days depending on the temperature as well as on the thickness of leather. Basically this method is best suited for thin and soft leather. The deformation of the leather is high because it is not hindered.

#### **7) Oiling and Bating**

The tanned skins/hides are 'oiled' or 'fat liquored' by applying castor oil or mustard oil. In this process a cotton cloth is dipped in oil then rubbed on the hide/skin. It usually requires two to three people. The main aim of oiling is to provide the hide with lubrication and allows it to flex repeatedly without cracking as the fibres that are dry and un-lubricated break very easily. It does impart colour, shine and helps in removing the odour. With oiling bating is done. The ultimate goal of bating is to get hides pliable for use. The process deswellsswollen pelts with the help of wooden bat results in a clean, smooth and soft hide surface. After that the dried fat liquored hides are then conditioned in moist raw dust.

## 8) Washing

It is then finally washed and dried.



**Plate 1: Processing of Camel Hides**

## **4.6UTILIZATION PATTERN OF CAMEL LEATHER**

### **A) Information about different camel leather products**

During the investigation the researcher found that various products are made from camel leather. The artisans make leather lampshades, leather kopi (a bottle used for keeping oils and perfumes), *mojari*, waist storage belt, pouch, purse, wallets, small pouch, petti (a belt kept on camel at the time of riding), diary covers, rugs and hanging storage pouch.

### **B) Tools required for development of camel leather products**

During the data collection process, the researcher got the chance of getting first hand information about various basic tools used by artisans for different production tasks. Cen per cent respondents in all the four selected areas under research work were making use of all these tools. The detail description of these tools is presented below:-

#### **1. THREAD**

Perhaps the most basic tool used in stitching leather is thread. Basically nylon, waxed or cotton thread are used for stitching.

#### **2. RAPA**

It is a tool made of iron with one side cylindrical and the other flat sharp-edged. The cylindrical portion is inserted in a wooden handle. It is used for peeling or used for peeling or used to remove some thickness from the hides/skins for developing products.

#### **3. RAPPI**

It is a sharp edged tool which has a smaller cutting edge as compared to rapa. It is ured to cut leather, a fundamental part of producing leather goods.

#### **4. HAMMER (MOGAREE)**

It is an iron implement which have a big round hitting surface. It is used to beat the leather to make it hard and for hitting stamps and punches.







**RAPA**



**RAPPI**



**HAMMER (MOGREE)**



**AARI**



**SILLA (SLAB)**



**KHABEEDA**

**Plate: 2 Basic tools for development of camel leather products**



### **1. AARI**

It is sharp thick iron needle with a hole at one end and a wooden handle at the other end. It is used to create holes or for piercing leather which carry the stitching thread. Also known as awl.

### **2. SILLA(SLAB)**

It is a slab of stone kept in front of the artisans as a working platform it is used for the various processes carried out to make different camel leather products i.e. smoothening out the leather, rubbing, cutting, stitching and polishing. Some other names given to this slab were *silli* and *patri*.

### **3. KHABEEDA**

It is a tool made of iron with one side having flat wide sharp-edged and a handle at the other end. It is used for stretching, smoothening, softening and to flatten out the wrinkles from the leather.

The data presented is in conformity with the findings of Anonymous (2011) who reported that in production of goods both the rural and tribal artisans use traditional process and techniques inherited from forefathers. Tools comprise of 'rapi', 'aari', 'needle', 'thread' and 'hammer'.

## **C) Leather used to make products**

In retort to the question concerning that the products made from leather are of pure camel leather or other animals leather are used. Cent per cent of respondents state that artisans made products from both pure camel leather and other animals leather for livelihood.

## **D) Products are costly**

A product completely made of real leather will be quite expensive. During investigation the researcher got to know that cent per cent of the respondents state that camel leather products are costly due to high cost of raw material, time, energy and manual labour required.

#### **F) Can change colour of camel leather**

The natural or 'russet' coloured leather is the natural and undyed leather. Bikaneri breed of camel varies from brown to black. Jaisalmeri, Barmer and Jodhpuri breed colour is predominantly light brown. During research the researcher manifest that cent per cent of the respondents felt that colour of camel leather can be changed. Acrylic paints are used for colouring the leather products but the artisans don't use much of it as per the preferences of the customers. Basically the artisans apply oil to darken the leather.

#### **G) Products prepared by the leather**

Researcher ask the respondents that what all products you are preparing by using camel leather and other leather the respondents revealed is as follows:-

##### **(i) Products prepared by camel leather**



**Mojari**



**Embroidered Mojari**



**Zari work purse**



**Diary**



**Coloured thread embroidery pouch**



**Side bag**



**Side bag embroidered with  
colourful threads**



**Wrist bands**



**Belts**



**Small hand pouch**



**Different purses and  
pouch**



**Storage bag**



**Waist storage bag & pouch**

**Cam**



**C**







**Kupa (bottle)**



**Surahi**



**Lampshade**



**Kupa with handle**



**Small kupa**



**PLATE 3: Products made by Camel lather**

**(ii) Products prepared by other leather**



**Diary**



**Sling bag**



**Wallet**



**Hand bags**



**Laptop bags**



**Sling bag**



**Bottle cover**

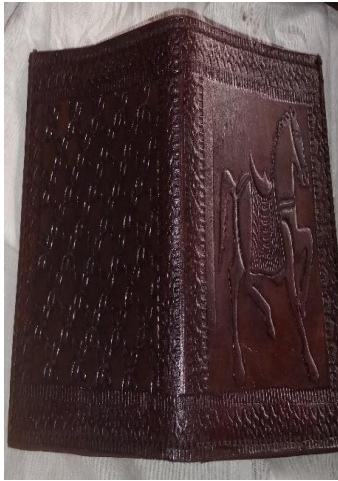


**Hat**



**Duffel bag**





**Wallet**



**Bag pack**



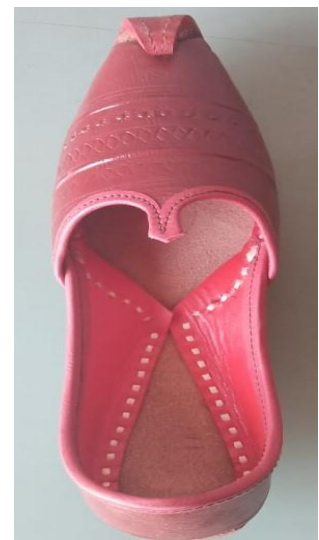
**Side bagpack**



**Rug**



**Waist storage bag & pouch**



**Reinemojari**



**Mojari**



**Machine finished mojari**



**Machine stitched wallet**

## Plate 4: Products prepared by other animal lather

### 4.7 PRODUCTION

This section is divided into two parts i.e. before and after production. It gives detailed information about stock preparation, sources of orders, places of orders, embellishment used, demand, export, mode of selling and change in current trend market of camel leather products, their frequency, percentage and different steps undertaken for getting orders are included.

#### I. BEFORE PRODUCTION

##### A) Basis of preparation of stock

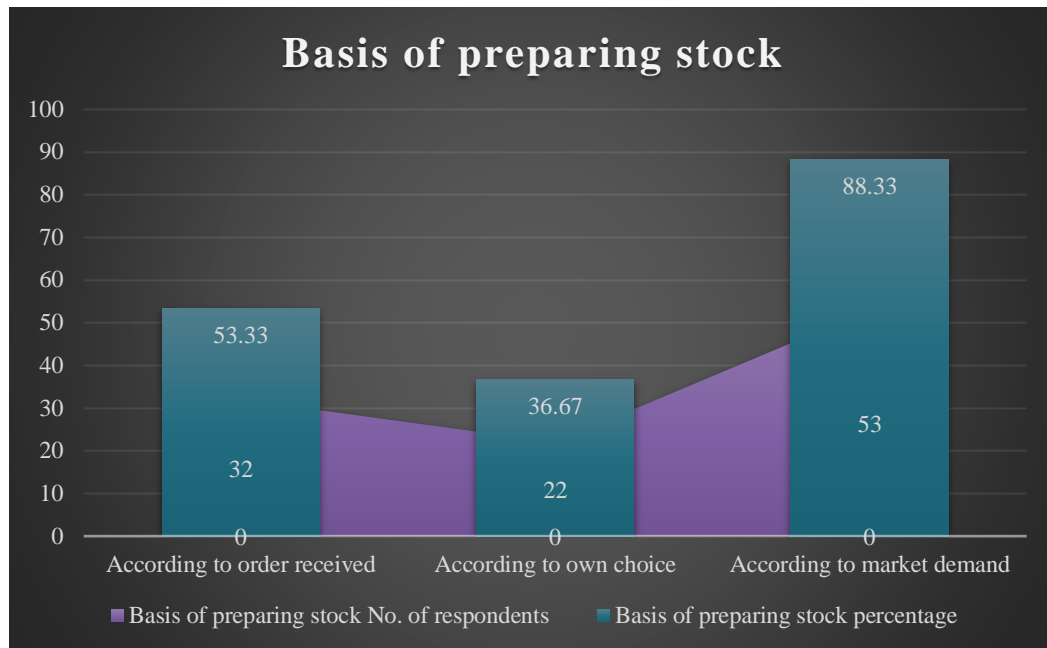
**Table 4.18 Distribution of respondents by preparing stock**

**n=60**

Basis of preparing stock	Respondents								Total	
	Bikaner		Barmer		Jaisalmer		Jodhpur			
	F*	%	F*	%	F*	%	F*	%	F*	%
According to order received	8	53.33	6	40	7	46.67	11	73.33	32	53.33
According to own choice	4	26.67	6	40	7	46.67	5	33.33	22	36.67
According to market demand	13	86.67	14	93.33	14	93.33	12	80	53	88.33

*\*Multiple responses*

Cursory of table 4.18 reveals that in Bikaner, Barmer, Jaisalmer and Jodhpur respectively 53.33% respondents prepare stock on the basis of order received; 36.67% respondents prepare stock on the basis of their own choice and the remaining 88.33% respondents prepare stock on the basis of market demand.



**Fig. 4.10 Distribution of respondents by basis of preparing stock**

## **B) Embellishments**

In Rajasthan Jaisalmer and Bikaner are famous for decorative leather *jooties* embellished with beautiful beads and embroidery work. Through investigation the researcher revealed that there are various embellishments done on camel leather products by the respondents.

Different types of embellishments are as follows:-

### **1) Applique**

Applique in form of differently designed figures are cut out of leather and sewn manually on the leather products.

### **2) Carving**

The traditional method of decorating leather products in a way to give a three-dimensional effect.

### **3) Crystals**

Crystals are also used for embellishing/decorating camel leather products. It comes in different shapes and sizes of metal. Once punched the hole put the



crystal through the hole and at the post end put a cap on the back of the crystal.

#### **4) Embossing**

Another art of embellishing leather. Through the use of different shaped tools (stamps) can intricate design onto the leather surface.

#### **5) Embroidery**

A craft of decorating/embellishing different leather products. Embroidery is done by women's using wool, silk, gold and silver zari threads. It incorporate other materials such as pearls, beads, quills and sequins.

#### **6) Punching**

A technique extensively used on leather specifically for making holes and are often perforated to get leather straps and laces through it. Leather belts are punched so that they can be closed. Shoes are provided with holes for ventilation/breathability property or for decorative reason, with repeating patterns.

Ibex Expeditions (2013) who reported in the article 'Footnotes from Jaisalmer' that items made of camel leather are decorated with applique work and embroidery done with a mosaic of colours patterned with tiny mirrors.

Garg (2011) in 'Rajasthani Art and Dance' reported that the goods are decorated with sequin, beads, golden and coloured threads.

### **C) Technique used to draw sketch on camel hide products**

In response to the question about the technique of drawing sketch on camel hide products by hand or by tracing. The researcher found that artisans draw sketch manually by hand and by tracing on the surface by using indigo or black coal powder.

### **D) Type of design/motif on camel hide products**

During investigation the researcher found that art work is done on camel hide and is associated with Muslim community. The various motifs/design intricate on

camel hide products, which are mainly mythological figures or miniatures paintings, flowers and occasionally artisans own creations.

#### **E) Colours and colour coat apply on camel hide products**

During research it was found that artisans use acrylic colour for colouring the camel hide products i.e. lampshade, kuppi, etc. Colours can be used directly from the tube, mixed with an acrylic medium or with water. The dominant colours used in this *usta* art on camel hide are red, golden and green. Firstly two coats of colours are applied on the design; when it get dried the gold foils are applied on the yellow colour coated area of the design. After it dried the thin outline is drawn with a brush.

#### **F) Retainment of colour and varnish apply on camel hide products**

In retort to the question concerning that how long the colour will retain and varnish used on camel hide products. The artisans state that the colours applied on camel hide products are permanent as varnish is applied after the colouring. It is a clear transparent finish and protects from dirt, sunlight, water and forms a tough or hard surface that protects against abrasion. It gives the finished appearance to the product.

## **II. AFTER PRODUCTION**

#### **A) Camel leather products more demanding**

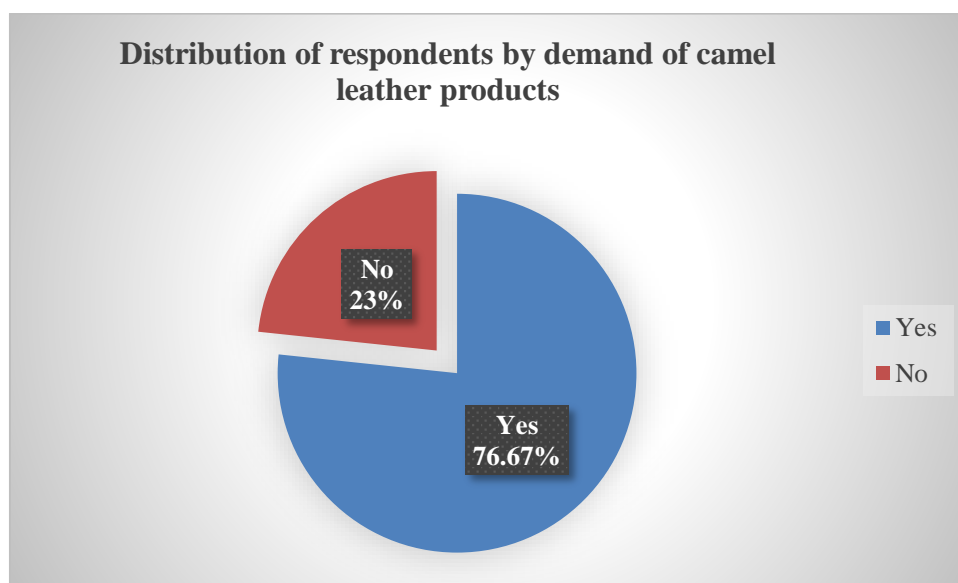
In response to the question regarding the demand of pure camel leather products. Table 4.19 revealed that 76.67 per cent of the respondents agreed that there have been demand for camel leather products and the remaining 23.33 per cent respondents reported no demand of camel leather products.

**Table 4.19 Distribution of respondents by demand of camel leather products**

**n=60**

Demand of camel leather products	Respondents								Total	
	Bikaner		Barmer		Jaisalmer		Jodhpur			
	F	%	F	%	F	%	F	%	F	%

<b>Yes</b>	12	80	10	66.67	13	86.67	11	73.33	46	76.67
<b>NO</b>	3	20	5	33.33	2	13.33	4	26.67	14	23.33



**Fig. 4.11 Distribution of respondents by the demand of camel leather products**

#### **B) Mode of selling**

The common mode of selling pattern of the respondents was observed as selling at their own shop, co-operation, exhibitions and mediators. The detailed information is as follows.

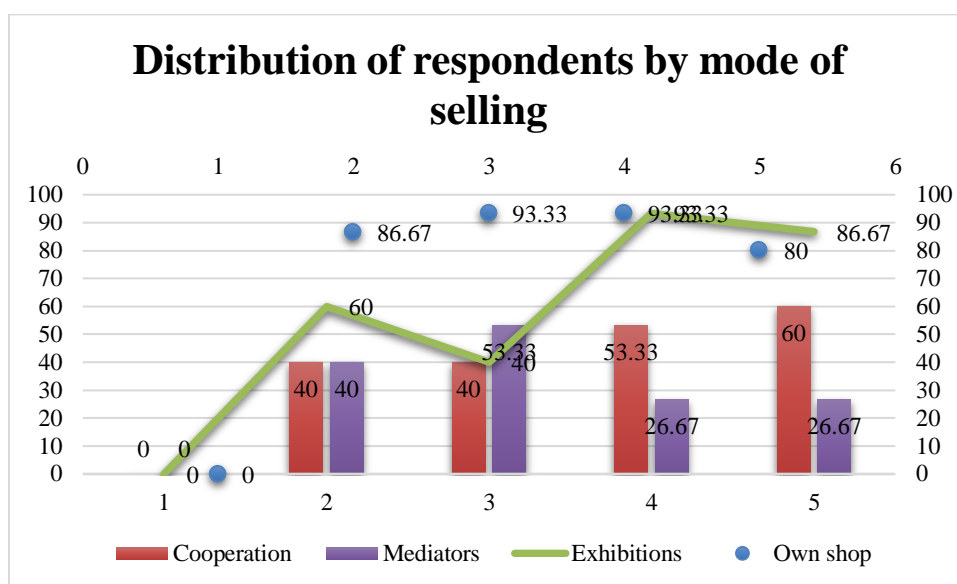
**Table 4.20 Distribution of respondents by mode of selling**

**n=60**

Mode of selling	Respondents								Total	
	Bikaner		Barmer		Jaisalmer		Jodhpur			
	F*	%	F*	%	F*	%	F*	%	F*	%
Own shop	13	86.67	14	93.33	14	93.33	12	80	53	88.33
Co-operation	6	40	6	40	8	53.33	9	60	29	48.33
Exhibitions	9	60	6	40	14	93.33	13	86.67	42	70
Mediators	6	40	8	53.33	4	26.67	4	26.67	22	36.67

*\*Multiple responses*

It is clear from table 4.20 that in Bikaner, Barmer, Jaisalmer and Jodhpur 86.67 per cent, 93.33 per cent, 93.33 per cent and 80 per cent respondents respectively used to sell products by arranging proper display at own shop; 40 per cent, 40 per cent, 53.33 per cent and 60 per cent respondents respectively used to sell products in cooperation. Selling in exhibitions organized by government was practiced by 60 per cent, 40 per cent, 93.33 per cent and 47 per cent respondents respectively where as selling via retailers was adopted by 40 per cent, 53.33 per cent, 26.67 per cent and 26.67 per cent respondents in all the selected areas of study.



**Fig. 4.12 Distribution of respondents by mode of selling**

### **C) Change in current trend market**

Recently, from the last four decades there has been change in trend of camel leather products or goods in terms of:-

#### **1. Raw material used**

Previously only pure camel leather products was used but now chrome leather, Rexene and other textile material are used commonly. These are not only cost effective, easily available but also less energy and time required.

#### **2. Changes in tools and machines**

The paramount changes were observed in the use of tools and machines. Different types of machines are used for developing goods i.e. for processing, stitching,

embellishing various designs, computerized embroidery, compressing machine and finishing machine. It increases the efficiency and effectiveness of work.

### 3. Changes in design and colour used

The traditional design of camel leather products such as applique work, carving, embossing, punching and embroidery with wool, silk, cotton, golden and silver zarithreads, new designs have been introduced in the market like interweaving, bead stone and weave with small leather strips etc.

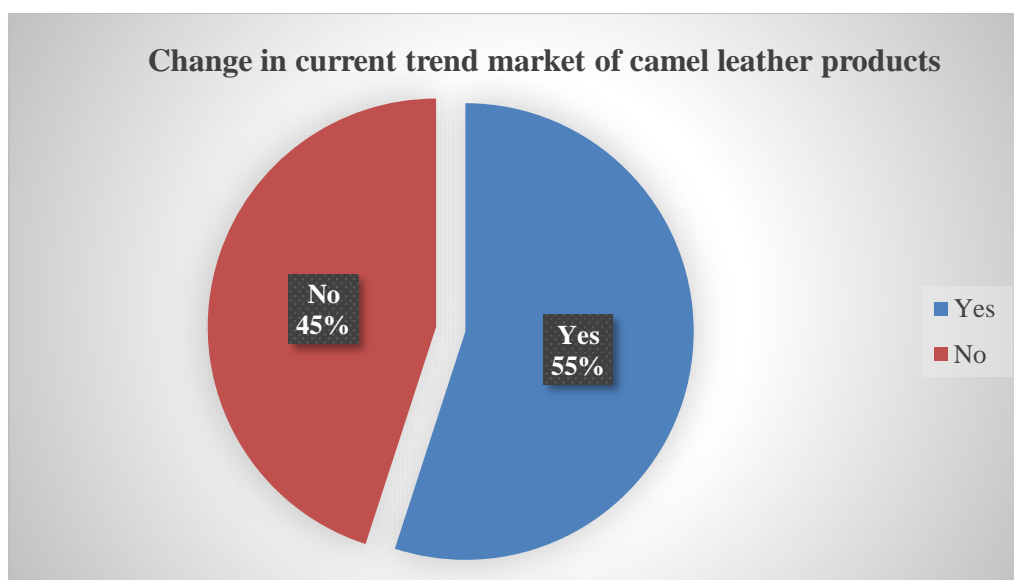
The artisans mainly produce plain colour camel leather products due to non-availability of treated leather and colouring agents. Various other coloured fabrics are used for manufacturing different goods of black, green, red colour and though in present time synthetic colours had gained prominence.

**Table 4.21 Distribution of respondents by change in current trend market of camel lather products**

**n=60**

Change in market	Respondents								Total	
	Bikaner		Barmer		Jaisalmer		Jodhpur			
	F	%	F	%	F	%	F	%	F	%
Yes	8	53.33	10	66.67	6	40	9	60	33	55
NO	7	46.67	5	33.33	9	60	6	40	27	45

Perusal of data in table 4.21 depicts change in current trend market of camel leather products. 55 per cent of the respondents agreed that there have been change in current trend market whereas 45 per cent of the respondents reported no change in current trend market of camel leather products.



**Fig. 4.13 Distribution of respondents by change in current trend of camel leather products**

#### **D) Determination of the price of an article**

During investigation the researcher got to know the factors determining the price of an article. Price is the value charged for a product. It is influenced by both production cost and demand for the product. Factors that determine the price of an article firstly, according to cost of production i.e., material used, design or pattern made and workmanship. Secondly, demand for product in the market. If demand is more than supply, higher will be the price of an article. Thirdly, purchasing power of customers and lastly, the marketing method used it includes the middlemen for sale of goods.

**Table 4.22 Factors determining the price of an article**

**n=60**

Price of an article	Respondents							
	Bikaner		Barmer		Jaisalmer		Jodhpur	
	F	%	F	%	F	%	F	%
<b>Material used</b>	15	100	15	100	15	100	15	100
<b>Design or pattern</b>	15	100	15	100	15	100	15	100
<b>According to workmanship</b>	15	100	15	100	15	100	15	100
<b>Marketing method</b>	2	13.33	0	0	1	6.67	3	20
<b>Purchasing power</b>	4	26.67	7	46.67	5	33.33	9	60
<b>Market demand</b>	15	100	15	100	15	100	15	100

*\*Multiple responses*

The data in table 4.22 reveals that cent per cent of respondents stated that according to material used, design or pattern, workmanship and market demand are the factors that help in determining the price of an article. 60 percent and 20 per cent respondents in Jodhpur determine the price of an article according to purchasing power and marketing method respectively.

#### **E) Problems in storage of product**

Cent per cent respondents face problem in storage of leather goods. During investigation researcher found that when the products are kept at the store for marketing purpose are exposed to direct, intense sunlight which triggers dark colouration of leather (from brown to dark brown) during the course of rainy season with high humidity in air the storage of goods become more difficult as a risk of mould formation. More importantly there is also a need to protect the goods from street dogs, pests, mice, rats and from leather worms which particularly eats vegetable tanned leather.

#### **F) Management of excess stock**

Excess stock or overstocking refers to the amount of goods or merchandise available in a shop as the demand for that product diminishes. It is directly associated with loss of revenue. During data collection researcher got to know that in management of excess stock the respondents search for new retailers and also introduce different sales promotion schemes i.e. discounts including 'buy more, save more', get 5%, 10% and 15% off on purchase of one or two item and special price for buying multiple items.

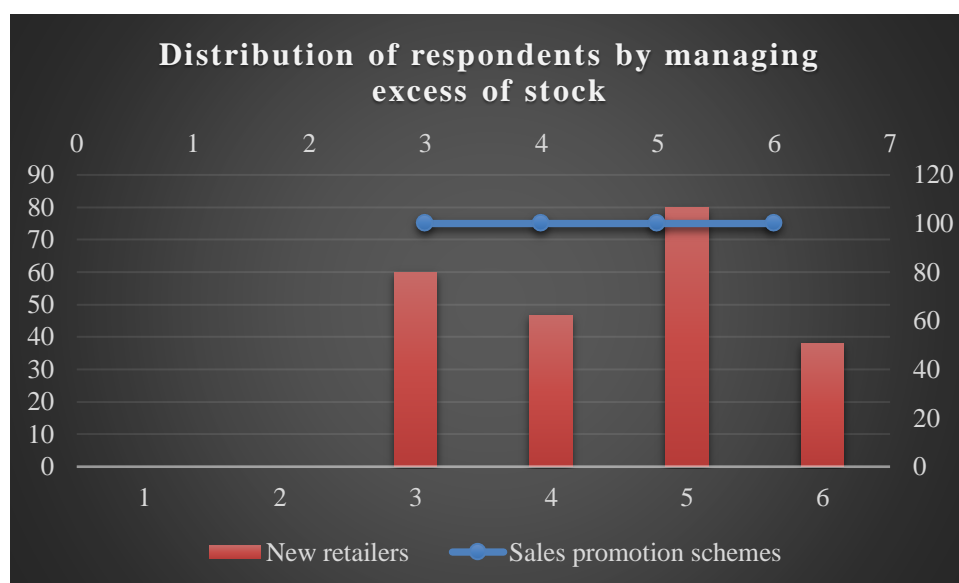
**Table 4.23 Distribution of respondents by managing excess of stock**

**n=60**

Excess of stock	Respondents								Total	
	Bikaner		Barmer		Jaisalmer		Jodhpur			
	F*	%	F*	%	F*	%	F*	%	F*	%
Sales promotion schemes	15	100	15	100	15	100	15	100	60	100
New retailers	9	60	7	46.67	12	80	10	66.67	38	63.33

*\*Multiple responses*

The data regarding excess of stock has been presented in table 4.23. cent per cent of respondents introduce different sales promotion schemes to get rid of losses where as in all the selected areas of study respondents (9%, 7%, 12% and 10%) respectively search for new retailers.



**Fig. 4.14 Distribution of respondents by managing excess of stock**

#### 4.8 PROBLEMS FACED BY THE ARTISANS OF RAJASTHAN

##### A) Problems

The researcher identified a number of obstacles that limit the growth of respondents. Major obstacles identified has been presented below:-

**Table 4.24 Distribution of respondents by problem faced**

**n=60**

Category	Respondents							
	Bikaner		Barmer		Jaisalmer		Jodhpur	
	F*	%	F*	%	F*	%	F*	%
<b>Lack of market</b>	10	66.67	8	53.33	0	0	0	0
<b>Raw material supply</b>	8	53.33	9	60	10	66.67	11	73.33
<b>High cost of raw material</b>	15	100	15	100	15	100	15	100
<b>Time constraint</b>	15	100	15	100	15	100	15	100
<b>Lack of interest among family members</b>	11	73.33	7	46.67	6	40	10	66.67



<b>Finance</b>	15	100	15	100	15	100	15	100
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*\*Multiple responses*

### **1) Lack of market**

One of the major problem faced by camel leather artisans is the lack of interest/disinterest of the consumers towards the manually made products as they are fascinated towards the machine made finished goods which imparts the production with a better visual appearance as compared to those which are made manually. Accompanied by the various finance issues these artisans are unable to publicize their products through different medias.

Data in table 4.24 reveals that 66.67 per cent of respondents in Bikaner and 53.33 per cent respondents face problem of lack of market.

### **2) Raw material supply**

Raw material supply is one of the major problem faced by the camel leather artisans. These are the inputs or resources that artisans used in manufacturing of finished goods. It is clear from the above table that due to non-availability of raw camel hides artisans in all the selected area of study are facing scarcity of raw material i.e. 53.33 per cent respondents in Bikaner, 60 per cent and 66.67 per cent respondents in Barmer and Jaisalmer. 73.33 per cent respondents in Jodhpur.

### **3) High cost of raw material**

High cost of raw material was the next major problem reported by cent per cent respondents of Bikaner, Barmer, Jaisalmer and Jodhpur.

### **4) Time constraint**

The problem of time constraint was faced by cent per cent respondents of Bikaner, Barmer, Jaisalmer and Jodhpur due to the fact that these respondents still use traditional tools and old manufacturing methods i.e. totally. Thus, labour intensive and time consuming process.

### **5) Lack of interest among family members**

During investigation the researcher found that rural youth are disinterested in continuing the family craft traditions due to two reasons:- Firstly, seen their parents struggling for markets and fair prices for their products. Secondly, todays school

system does not integrate lessons regarding the importance of craft in curriculum and instead push the students towards other reputed jobs.

The findings of the study were in consonance with Anonymous (2011) who reported that youngsters were no longer interested in pursuing career and does not want to associate themselves with the craft no longer as the work is still looked down upon in the society.

## **6) Finance**

One of the crucial problem faced by camel leather artisans was the finance issue. Cent per cent of respondents faced problem of indebtedness as mentioned in the above table. Efforts need to be made for providing credit and finance to the weaker artisans.

Ghouse (2012) listed various problems of artisans as follows: low/no demand, lack of access and high cost of raw materials, obsolete tools & equipment, licensing problems and high cost of credit, labour regulations and policy uncertainty, poor infrastructure and scarcity of skilled labour, shipping problems, low subsidy, income tax and market awareness.

## **B) Attributes responsible for changing trends**

Various responsible for changing trend in camel leather products has been presented below:-

### **1) Change in technology**

Technology played a significant role in changing the trend of camel leather products. It has brought progress in overall process of invention, innovation and diffusion of technology. With the innovation of computerized embroidery and embellishment machine, through which complex design making has become easy and possible. Technology change increased the efficiency and effectiveness of work. In other words increase in output, without an increase in input. Secondly, technology change has advanced communication and made it more accessible and convenient in terms of order procurement, supplying, etc. Researcher found that in all the other leathers latest technology is used but in case of camel leather, artisans are still limited by the use of traditional method. No such technology is being used as revealed by the respondents.

### **2) Mass media**

Mass media is a diverse array of media technologies that are intended to reach a large number of audience through mass communication. It influences individuals behaviour, attribute, beliefs, values, culture and psychology both positively and negatively. There are variety of outlets by which communication takes places. The print and electronic media plays a vital role in changing the trend of camel leather products. As it transmit information through physical objects i.e. magazines, newspaper, pamphlets (print media) and electronically i.e. films, television and recorded music. Artisans and consumers became aware about the latest fashion design and traditions and this awareness directly affect the demand and production of camel leather products.

### **3) Fashion trend**

Trend refers to a certain fashion style popular at a certain time. Fashion is distinctive and is directly affects the changing trend of camel leather products because most of people are influenced by the current fashion trend which varies continuously and various media outlet helps in promoting this varying fashion trend.

#### 4) Marketing demand

Demand of a product is directly proportional to the supply. As per the result of market survey to increase the demand of products produces always inculcate new innovations in products produced. Market demand is the total of what market wants. More demand, which leads to more orders to the artisans engaged in the activity.

#### 5) Marketing pattern

Marketing patterns plays a significant role in changing the trend of camel leather products as it allows to maintain long-lasting relationship with audience and helps in enhancing productivity.

**Table 4.25 Distribution of respondents by attributes responsible for changing trends**

Aspect	Respondents							
	Bikaner		Barmer		Jaisalmer		Jodhpur	
	F*	%	F*	%	F*	%	F*	%
Change in technology	5	33.33	5	33.33	7	46.67	10	66.67
MASS MEDIA								
Print media	15	100	15	100	15	100	15	100
Electronic media	6	40	10	66.67	12	80	15	100
Fashion trend	15	100	15	100	15	100	15	100
Market demand	15	100	15	100	15	100	15	100
Marketing pattern	6	40	9	60	10	66.67	11	73.33

*\*Multiple responses*

Data in table 4.25 portrays that in all four selected districts. Cent per cent of the respondents reported that print media, fashion trend and market demand are major attributes responsible for changing trend in camel leather products.

Changes in technology was another attribute in bringing change in current trend as reported 33.33 per cent respondents in Bikaner, 33.33 per cent respondents in Barmer followed by 46.67 per cent respondents in Jaisalmer. In Jodhpur 66.67 per cent of the respondents were affected by change in technology.

With regard to marketing pattern 40 per cent respondents in Bikaner, 60 per cent respondents in Barmer, 66.67 per cent respondents in Jaisalmer and in Jodhpur 73.33 per cent respondents were found to be affected.

### **C) Job satisfaction**

Artisans were skilled men/women who fashioned handicrafts with their hand without the use of powered machinery. The respondents opinion about the job satisfaction was observed by researcher that only 34 per cent respondents are fully satisfied as they don't want to change the business and 22 per cent are somewhat satisfied. The few remaining respondents were noticed having no satisfaction at all.

There are several factors which contribute to the job satisfaction are better remuneration, job security, flexibility, welfare facilities, human relations in workplace etc. the researcher observed that the artisans gives utmost importance to job security. Lack of access to raw material and its high price, getting a lower price of product, challenge to change/modify the products according to modern tastes, increased use of chrome tanned leather; buffalo leather; rexine in case of camel leather.

Remuneration is an another important factor in the fulfilment of job satisfaction. Researcher wants to remind the monthly income of artisans refer from table 4.4. It was observed that the average remuneration of a camel leather artisans is about Rs 1,500/- to 5,000/- per month. Artisans find it very difficult to survive with such a low income and as a result artisans loose interest in their work. Though this monthly income/remuneration can't even fulfil the basic needs of the family members.

### **D) Health hazards**

WHO defines health-a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity. Health of camel leather artisans is the main concern of the researcher and found that cent percent of the respondents suffers form various health issues due to continuous working hours and improper postures. Among the respondents some artisans suffers from orthopaedic disorders i.e. back, knee, joint, foot, hand and leg pains. Some said the suffer from blurred vision. It is because of cutting leather for making various utilitarian goods which require careful visionary angles. Also suffers from eye pain and itching, watery eyes, body itching, sleep problems, chest pain, cough, breathing problems, redness of

eye, scabies a skin condition caused by a burrowing mite and hand pain in varying frequencies.

“Artisans”the craftsmen which create unique, functional and decorative items with hands using traditional techniques.

In the light of above result and discussion ‘camel leather artisans’ plays a vital role in the cultural heritage that is something which is inherited from once’s ancestors. It was observed that artisans are still limited by the use of traditional methods in processing and developing of finished goods. But now a days artisans showed more inclination towards chrome tanned leather and rexine due to being easily available and inexpensive.

Communities involved in craft belonged to scheduled castes i.e. Regar, Jingar, Khatri, Gujar and Muslim. Family members doesn’t want to pursue the family occupation due to low wages and no social status of workers still looked down upon in the society.

## SUMMARY

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Rajasthan is a state of glorious history, ethnic traditions, vibrant culture and rich heritage. Also known as “Land of Maharajas” or “Land of Kings.” Fairs and festivals are a reflection of diverse social and cultural heritage of the state.

The Thar Desert in western Rajasthan is the largest desert in India. This great Indian desert or the Thar Desert encompasses about 70% of the total landmass of Rajasthan and hence recognized as the “Desert State of India.” The Thar Desert comprises the districts of Jaisalmer, Barmer, Bikaner and Jodhpur. Rajasthan desert embraces three cities i.e. Jaisalmer, Bikaner and Jodhpur and hence commonly known as the desert triangle. The cultural and historical significance and the glorious ancient past of these cities has marked Rajasthan as “the most colourful desert in the world” (<https://www.mapsofindia.com/maps/rajasthan/geography-history/desert.html>).

Bikaneri breed of camel is one of the major camel breeds found in India and derived its name from the Bikaner city which was established by the Rao Bika in the 15<sup>th</sup> century. This breed is heavily built and are attractive with a noble look. The colour varies from brown to black and however in some animals reddish tinge is also found. The Jaisalmeri breed is of active temperament and is quite tall with long and thin legs. This breed covers Jaisalmer, Barmer and part of Jodhpur district in Rajasthan. The body colour is predominantly light brown. They have thin skin and short hairs on body (<https://nrccamel.icar.gov.in/camelbreed.php>).

Camel “The Ship of Desert”. Earlier it was not only used as a means of transportation in the desert region but was also used as a basis of living and even as a status symbol and also for its hide for making utilitarian products. On the demand of situations the uses of everything certainly changes after a long period of time. As in the same way its utilization has also been changed.

The use of leather begun from the time when man hunted wild animals for food. He realized that its skin or hide can be used for clothing and other purposes. We can say from the pre- civilization era man has been using leather i.e. the animal raw hide or skin. The raw hide or skin is processed by tanning as it cannot be used in its raw form because it stinks and gets affected by various types of micro-organisms.

At present there is decline of camel population in Rajasthan due to some diseases, slaughtering, smuggling as there is huge demand for camel meat in Bangladesh and other countries. Raika community known for breeding camel are now leaving its camel because they are not getting any benefit as mentioned above and money spent for their rear and care is high. Ultimately it affects its leather availability too. *Regar, Jingar, Gujar* are other communities which are involved right from the flaying/skinning, hair removing, dyeing and making finished goods of hides or skin.

**Good quality camel leather items i.e., *mojari*, wallets, bags, belt, purse, pouch come with a light weight handcrafted and beautifully designed. Before using the leather it is dipped in water to soften it. Stitching is done with cotton threads to provide it strength and keep it natural. Stitching is done manually not with machine because of its thickness. The sewn areas are frequently hammered on the wooden block to firm the joints. Vegetable dyes are used in shades of dark pink, red, brown and green. Embellishment on products is done using delicate embroidery work using silk, metal and embroidery threads, steel buckles, punching designs, applique and pin tucks used for craveng holes.**

**The present study was designed to find the existing status, process of preparing and utilization of camel leather along with the problems faced by the artisans in the marketing world. The present study was undertaken keeping in view the following objectives:**

1. To find out the existing status of the camel leather in Rajasthan.



2. To study the process of preparing camel leather for product development.
3. To study the utilization pattern of camel leather.
4. To find out the problems faced by the artisans for selling of the camel leather products.

## **METHODOLOGY**

The present study was a survey study and conducted on utilization pattern of camel leather and problems faced by artisans. The study was conducted in Bikaner, Barmer, Jaisalmer and Jodhpur district of Rajasthan on the basis of concentration of camel leather artisans in the region.

The sample for the present study consisted of sixty respondents and were selected randomly from four districts who are involved in camel leather work directly or indirectly. These were whole sellers, retailers, exporters and some engaged in doing all work together from processing, manufacturing to sales at their own. Purposive sampling method was used for sample selection. The research was based on a survey study and includes both qualitative and quantitative data to obtain information about the utilization pattern of camel leather and problems faced by the artisans of Rajasthan.

A structured interview schedule was used to collect the information. It comprises of both open and close ended questions which were based on background information of the respondents and detailed information about the existing status of camel leather, processing, utilization pattern and product developed and the problems faced by the artisans.

The data obtained from the survey was coded, tabulated and expressed in frequencies and percentage in accordance with the objectives of the study to arrive at meaningful and relevant inferences.

## **FINDINGS**

The findings of the study has been encapsulate as follows:-

- Majority of respondents (46.67%) in Jaisalmer and Jodhpur followed by 66.67% of the respondents in Barmer belong to age group 45-60 years. 53.33% respondents in Bikaner belong to 30-45 years.

- Camel leather work in Bikaner, Barmer, Jaisalmer and Jodhpur was carried by scheduled castes i.e. Regar, Jingar, Khatri, Gujar and the minority community i.e. Muslim.
- In determining the general background information of an individual, education, family type and size is an important measure. Education qualification of the respondents was quite unsatisfactory. Majority of the respondents (46.66%, 66.67%, 40% and 46.66%) in Bikaner, Barmer, Jaisalmer and Jodhpur respectively are illiterate and live in joint family setup with 5-8 family members.
- Majority of respondents had earned monthly income between Rs 1,500-5,000/-
- The finding discloses that all the respondents inherit this art from fathers and fore fathers. Respondents started working on camel leather since childhood i.e. learning of this inherited art started from the age of 6-10 years.
- 75 per cent of artisans had acquired training from the family members as its the traditional family occupation and passed on through generations to generations and slowly got mastered this art through guidance, practice and experience.
- Due to low earning and more time consuming, 41.67% of the respondents were involved in some other occupation i.e. part time jobs for sustainable livelihood. Those who are exclusively devoted to this art (ancestral profession) worked on full time basis, spend 10-12 hours per day.
- Livestock plays a vital role as it's the basic need. Raw material (raw hide) come from livestock. Cent per cent of respondents get raw camel hides by natural death of camel. The artisans procure raw material from local market, nearby city and through cooperatives. In Barmer 80% of respondents procure from local market.
- Declaring camel as a state animal has made the condition of camel breeders worse day by day as breeders are unable to sell the natural products

obtained from the camel housed and brought by them.

- The Rajasthan Camel Prohibition of Slaughter and Regulation of Temporary Migration or Export Bill, 2015 has made the breeders cry, as the norms of this law it is prohibited to take camels out of Rajasthan. The idea of government of Rajasthan declaring camel as a state animal is great, but futile unless coupled with supportive measures.
- It was found that both men and women are involved in the art. Women were involved in the embellishment of goods basically the delicate embroidery work.
- It was found that majority of the respondents prepare camel leather products on the basis of order received and market demand.
- Cent per cent of respondents made products of both camel leather and other animals leather for livelihood.
- Researcher found that in all other leathers latest technology is used but in case of camel leather, artisans are still limited by the use of traditional methods i.e. manually done. As revealed by the respondents that no technically modernized technology is used because of the thickness of camel leather as compared to other leathers.
- Traditional methods are used in processing, manufacturing and in embellishing the goods. Embellishment work includes applique, carving, crystals, embossing, punching and embroidery with cotton, golden and silver zari threads.
- Usta golden art work done on camel hide products i.e. lampshades and kuppi is associated with Muslim community.
- Sketch on camel hide products is drawn manually by hand and by tracing on the surface by using indigo or black coal powder and the motifs intricate on goods are related to mythological figures or miniature paintings, flowers and occasionally artisans own creations.
- Artisans revealed that acrylic colours are used for colouring camel hide

products and can be used directly from the tube, mixed with an acrylic medium or with water. Basically red, golden and green colours are used. Colours applied on products are permanent as varnish is applied.

- Cent per cent of respondents made products of both camel leather and other animals leather for livelihood.
- From the last four decades there has been change in trend of camel leather products in terms of raw material used, change in tools, machines, design and colour used.
- Lack of market, raw material supply, high cost of raw material, time constraint, lack of interest among family members and finance are the major problems that ;limit the growth of these artisans.
- Change in technology, mass media, fashion trend, marketing demand and pattern were the attributes responsible for changing trends of camel leather goods.
- Several factors that contribute to the unwillingness of artisans to pursue the business are low price of products, challenge to modify the products according to modern tastes, low remuneration, increased use of chrome tanned leather, buffalo leather, rexine in case of camel leather.
- It has been found that artisans suffer from orthopaedic disorders, blurred vision, eye pain and itching, breathing problems, scabies and hand pain in varying frequencies.
- To display the fabulous piece of work and for selling of articles, artisans participate in exhibitions.

## **CONCLUSION**

On the whole it was observed that majority of the respondents in Bikaner, Barmer, Jaisalmer and Jodhpur (50%) were in age group of 45-60 years. Most of the respondents lived in joint family set up and inherited the camel leather craft from their fathers and fore fathers and slowly mastered this art through guidance, practice and

experience. The literacy rate of respondents was unsatisfactory only 20 per cent of the respondents were educated up to primary school.

In this highly modernized area, camel leather artisans are still limited by the use of traditional methods in processing and manufacturing of goods as compared to other animals hides which are easily available, inexpensive and uses latest technology in processing and manufacturing. It was observed that there were various embellishments used on goods like applique, carving, crystals, embossing, punching and the most commonly used was embroidery done with cotton, golden and silver zari and threads. Traditional tools are *rapa, rappi, mogaree, aari, silla and khabeeda* were used by artisans in developing products.

Respondents used to sell products on shops within the state, nearby cities through mediators and whole sellers. Change in technology, mass media, fashion trend, marketing demand and marketing pattern are the various attributes responsible for changing trend in camel leather products. Obstacles related to lack of market, raw material supply, high cost of raw material, time constraints, lack of interest among family members and finances are the major problems that limit the growth of these artisans.

During investigation it was found that rural youth are disinterested in continuing the family craft traditions due to two reasons:- Firstly, seeing parents struggling for markets and fair prices for products. Secondly, today's school system does not integrate lessons regarding the importance of craft in curriculum and instead push the students towards other reputed jobs. There is a need to provide appropriate technological input like modern machines for creating quality products in both designs and fashion that will ensure profitability and marketability of the products and would limit the artisans from diversifying. The government should also lend some policies to overcome the financial crises faced by these respondents.

## **RECOMMENDATIONS**

### **Recommendations for further research:**

- 1) A comparative study can be conducted to compare the two different animal leathers and their utilization.

- 2) In depth study to find out the role of leather in textile industry.
- 3) An exploratory study can be conducted on the utilization pattern of camel hair in textile industry.
- 4) A study on mechanical and structural properties of natural and synthetic leathers used for apparel.
- 5) An evaluation of effect of moisture on the physical properties of vegetable and chrome tanned leather.
- 6) In depth study on production and marketing of leather products in western region of Rajasthan.
- 7) A study on utilization pattern of other animal hides/skins and their market potential.
- 8) Documentation of the different processing methods of preparing hides/skins for product development.

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**MAHARANA PRATAP UNIVERSITY OF AGRICULTURE AND  
TECHNOLOGY,  
COLLEGE OF COMMUNITY AND APPLIED SCIENCES, UDAIPUR  
DEPARTMENT OF TEXTILES AND APPAREL DESIGNING  
M.Sc. Thesis, 2019**

**Title: An Exploratory Study on Utilization Pattern of Camel Leather and  
Problems Faced by the Artisans of Rajasthan**

**ABSTRACT**

Rajasthan camel leather artisans are still limited by the use of traditional method i.e. manually processed, manufactured and embellished. From the last four decades there has been change in trend of camel leather products in terms of raw material used, change in tools, machines, design and colour used.

The present study was undertaken to find out the utilization pattern of camel leather and problems faced by the artisans. It was conducted in the Bikaner, Barmer, Jaisalmer and Jodhpur districts of Rajasthan on the basis of concentration of camel leather artisans in the region. From each districts three areas were selected purposively which were dominated by camel leather workers. The sample of respondents constituted of sixty taking, fifteen from each of the four identified districts, including those who were involved in camel leather work directly or indirectly. Personal interview and questionnaire techniques were used for getting information from the respondents. The analysis of data was done using frequency and percentage distribution.

The profile of respondents revealed that 66.67 per cent of the respondents in Barmer followed by 47 per cent of the respondents in Jaisalmer and Jodhpur were in age group of 45-60 years. Education qualification of the respondents was quite unsatisfactory as majority were illiterate and lived in joint family setup with 5-8 family members. Camel leather work belonged to the reserve caste categories or scheduled castes which includes Regar, Jingar, Khatri, Gujar and the minority community i.e. Muslim. Different types of embellishment used by respondents are applique, carving, crystals, embossing, punching and embroidery with cotton, golden and silver zari threads.

The study depicts that after declaring camel as state animal the condition of camel breeders of Rajasthan is becoming worse day by day as breeders are unable to sell the natural products obtained from the camel housed and brought by them. The findings also revealed different problems faced by the artisans which were: lack of market, raw material supply, high cost of raw material, time constraint, lack of interest among family members and finance. The root cause for unwillingness of artisans and family members to pursue the family occupation is due to social status of worker's that is still not endorsed by the society with low price of products, increased use of chrome tanned leather, buffalo leather, rexine, challenge to modify the products according to modern tastes and low remuneration. This indicates that artisans should be given proper incentives, trainings and facilities for promoting the utilization of camel hides.

Major Advisor

Research Scholar









8. Family type :

(A) Joint

(B) Nuclear

9. Number of family members?

(A) Small

(B) Medium

(C)

Large

(up to 4 members)  
members)

(5-8 members)

(above 8

10. Primary occupation:

11. Secondary Occupation:

(A) Agriculture

(B) Dairy

(C) Any other  
(specify  
)

12. Total monthly income :

(A) Rs 1,500-5,000  
10,000

(B) Rs 5,000-

(C) Rs 10,000-15,000  
15,000

(D) Above Rs

13. Is this your ancestral profession ?

YES/NO

14. How long you have been in this profession of camel leather craft ?

(A) 10-20 yrs.

(B) 20-30 yrs.

(C) 30-40 yrs.

(D) 40-50 yrs.

15. Do you get work on :

(A) Seasonal

(B) Regular

(C)

Any other

16. Did you take any specialized training for this work ?

YES/NO

17. If yes, than from where did you learn this camel leather craft ?

(A) Family member

(B)

Institution

(C) Govt. camp

(D) Any

other

18. Involvement in camel leather work ?

(A) Full time

(B) Part

time

19. If full time, then specify the duration of the time you spend ?

(A) 4-6 hours

(B) 6-8

hours

(C) 8-10 hours

(D) 10-12

hours

20. Terms of payment?

(A) Per day

(B) Weekly

(C)

Monthly

## **SECTION II- EXISTING STATUS OF CAMEL LEATHER**

1. Give the source of purchase of raw material used for manufacturing ?

(A) Local market

(B) Nearby city

(C) Through cooperative

(D) Any other

2. Do you experience less availability of camel leather after declaring it as state animal.

If yes, than why?

YES/NO

3. How do you get camel leather ?

(A) By natural death  
killing

(B) By manual

4. After declaring camel as a state animal did government provide any  
skilful/alternative opportunity for livelihood ?

YES/NO

5.What is the hike in prices of raw material after declaring camel as a state animal ?

6. What is your opinion about the decision of government to declare camel as a state  
animal?

7. What kind of quality of camel leather is available in market ?

8. Do you think declaring camel as a state animal will affect the trade of leather for  
foreigners?

YES/NO

9. Is there any change in public demand of camel leather after declaring camel as a  
state animal ?

YES/NO

10. Is there any other problems related to leather or its availability ?

11. Do you think there is an alternative for camel leather in the market ?

YES/NO

### **SECTION III- PROCESSING OF CAMEL LEATHER**

1. Which type of methods are used in processing of camel leather ?

(A) Advanced

(B) Traditional

2. In advance/traditional method what are the steps used in processing of camel leather ?

3. Is the method cost effective ?

YES/NO

4. Is the method time consuming ?

YES/NO

5. Do you think camel leather processing is eco-friendly ?

YES/NO

6. All the resources are easily/locally available for the processing ?

YES/NO

7. How do you clean the raw hide ? Explain.

8. How do you treat the raw hide ? Explain.

OR

What are the treatments you give to raw hide ?

9. How do provide tanning to raw hide ? Explain.

10. How do you dry the hide ? Explain.

OR

What is the process of drying the raw hide ?

11. How do you soften the hide ?

#### **SECTION IV- UTILIZATION PATTERN AND PRODUCT DEVELOPED BY CAMEL LEATHER**

1. On what basis you prepare the stock ?

(A) According to order received

(B) According to own choice

(C) According to market demand

(D) Any other

2. How many orders do you receive per month ?

3. Give the information about the different camel leather products prepared ?

S.NO.	NAME OF PRODUCTS

4. Give information about tools required for development of camel leather products ?

S.NO.	NAME OF TOOL

5. Which type of leather you use to make products ?

(A) Pure camel leather

(B) Other leather

(C) Both (A) and

(B)

6. Is pure camel leather products more demanding ?

YES/NO

If yes/no why ?

7. Is there any certain method to know the quality/finest of the leather ?

YES/NO

If yes, than specify?

8. Which leather products are costly ?

(A) Camel leather

(B) Other leather

9. Which type of embellishments used in camel leather products ?

10. Is there any possibility of changing colour in camel leather ?

YES/NO

11. How do you draw sketch on leather lampshades ?

(A) By hand

(B) By tracing

(C) Any other

12. Which type of design/motif you prefer to make on leather lampshade ?

13. Which type of colours are used on leather lampshades ?

14. How many colour coat you apply on leather lampshades?

(A) 1-2 times

(B) 3-4 times

15. The colour applied on leather lampshade is :

(A) Permanent

(B) Temporary

16. If temporary then for how much time ?

17. Do you apply varnish on it ?

YES/NO

## **SECTION V- PROBLEMS FACED BY THE ARTISANS OF RAJASTHAN**

1. Where do you sale your products ?

(A) Your own shop

(B) Co-operation

(C) Mediators

(D) Any other

2. Have you ever exported your products ?

YES/NO

3. If yes, specify the place. Also specify that since what time you have been exporting ?

(A) Before two decades

(B) Recently

4. Do you observe significant change in current trend market of camel leather products ?

YES/NO

5. Problems faced by camel leather artisans:

- |   |                         |
|---|-------------------------|
| (A) Lack of market                            | (B) Raw material supply |
| (C) High cost of raw material                 | (D) Time constraint     |
| (E) Lack of interest among family members     | (F) Finance             |
| (G) Lack of low wages (H) Any other (specify) |                         |

6. Give suggestion to overcome the problem :

- |                        |                                |
|------------------------|--------------------------------|
| (A) Loan facility      | (B) Skilled training to worker |
| (C) Technology upgrade | (D) Any other                  |

7. Specify the factor responsible for changing trend in camel leather products. Give reasons ?

- |                            |                   |
|----------------------------|-------------------|
| (A) Development technology | (B) Mass media    |
| (C) Fashion                | (D) Market demand |
| (E) Any other              |                   |

8. How do you determine the price of an article ?

- |                               |                                    |
|-------------------------------|------------------------------------|
| (A) According to material use | (B) According to design or pattern |
| (C) According to workmen ship | (D) Any other                      |

9. Do you face any problem in marketing of camel leather products.

- |  |
|--|
| (A) Adequate transportation facilities are not available |
| (B) Lack of buyer in local market                        |



(C) High commission of the middle men

(D) Accumulation of stock

(E) Any other

10. Do you face any problem in storage of the product ?

YES/NO

If yes, than specify?

11. Do you face any problem related to health hazards ?

YES/NO

If yes, than specify ?

12. Any other problem faced ?

13. When ever you have excess of stock than what you do ?

(A) Introduce sales promotion schemes

(B) Search of new retailers

(C) Any other

15. Do you ever think to change your business or stay in same business ?If yes or no  
than specify ?YES/NO

16. What are the possible losses faced by the artisans after declaring camel as a state  
animal ?

