CHAPTER V
PRODUCTION PRACTICES AND MARKETING
STRATEGIES OF COIR INDUSTRY

In this chapter an attempt has been made to discuss the production practices of coir industry in Kanyakumari district and the marketing strategies adopted for the promotion of coir industry.

5.1 Production Practices of Coir Industry

From the organizational point of view, the coir industry could broadly be divided into four sectors. The first sector is connected with retting of husks and production of fibre. The second is the hand spinning sector, spinning of coir yarn forms the third sector. The fourth sector is concerned with the manufacture of coir mats and matting’s. Majority of workers employed in the fibre extraction and spinning sector are women. Child labour also appears in these sectors.

The basic raw material of coir industry is the coconut husk which has low value. There are various processes involved from collection of raw husk to manufacturing of yarn. The fibrous raw husk is extracted from nuts through the process called ‘dehusking’, a manual work. The coir fibre is five to ten inches in length. There are two major types of coir fibres. They are white and brown fibre.
5.1.1 White fibre

White fibre is extracted from retted husk. Retting may be natural or chemical. In natural retting the husks are soaked preferably in saline water for a certain period (average 4 to 6 months) until the fibre becomes loose and soft. Soaking of husks may be done in three ways. One is the immersing the husks in the muddy pits dug near lagoons in shallow water or by the side of backwaters where water flows in and out, with the rise and fall of the tide. An average pit contains about 1000 husks. The second method of soaking is, collecting the husks in coir nets and immersing them in water. The unit adopted for soaking in coir nets is usually 10000 husks at a time. The other way of soaking which is practiced in some areas is, putting the husks in enclosures erected in shallow backwaters with coconut levels and petioles. After the husks are filled in the soaking pits, nets or enclosures, they are covered with coconut levels and mud and weighed down to prevent floatation when immersed in water.

During the retting process, the husks become soft and a number of substances like carbohydrates, glucosides, tannins and nitrogen compounds are brought in solution. The time required for retting is influenced by various factors such as the stage of maturity of coconuts, the weather and the nature of water. A husk from immature nuts rets in short period. The process is quicker during the summer season because heat is necessary for fermentation. But the retting period is longer if the retting is done in saline water and shorter in fresh water. However, retting in saline water is considered to be the best for natural
retting. The salts in the saline water prevent over-fermentation without discolouring the fibre and the resultant fibre is strong and better coloured as the pith and other impurities are continuously removed by the free flow of water due to tidal action. The retting itself is not complete in fresh water and the fibre retains a certain amount of pith. For ensuring the quality of fibre, soaking is usually done in shallow waters as the heating effects of the sun on the water help to produce a better fibre. In shallow backwaters, it may sometimes happen that the husks soaked in pits get exposed during the low tide, which results in production of inferior quality fibre. This problem can be avoided if soaking is done in coir nets which help to deep sink of husks in backwaters and thereby subject to better tidal action than they are placed in pits. It was noticed that soaking crushed husks, reduces the retting period by six months. The crushing can be done by simple crushing rollers, similar to sugar cane crushers. White fibre is generally the longest and the finest and they are suitable for spinning yarn and products of superior quality. Mechanical and chemical retting is adopted in areas where facilities for natural retting do not exist and for speedy retting. In mechanical method either dry husks or green husk are soaked in cement Tanks having a provision for water flow in and out from tank for a period of one to three weeks. This ensures a better circulation of water, which will come into contact with all the husks and remove the acids and gums deposited in them. It will be necessary to re-arrange the husks from the lower part of the tank to the upper part and vice versa from time to time. Medium to
major coir units, practice this method. In some units, the husks are first crushed though iron rollers, a machine called husk crusher. Then the husks are thrown into a retting tank where they undergo fermentation for a minimum period of 72 hours. The fibre is extracted manually or mechanically. However, these processes do not yield fibre of spinnable quality as in the case of natural retting, but yield only bristle and mattress fibres.

In Chemical retting, various methods are developed. The advantages claimed are of higher yield of uniform quality fibre and considerable saving of time. But the financial advantage of chemical retting compared to the natural process has not been fully investigated for commercial exploitation. In one method the green or dry husks are partially crushed and treated under stream pressure of 5.6 to 7.0 Kg/cm$^2$ with sodium sulphate or sodium carbonate containing a trace of aluminium sulphate for one to two hours. During this process, the pith is loosened from the fibre and removed by washing. The fibre obtained is of good quality but bit darker than that of natural retting. Another method of chemical retting is by means of technology developed by the coir board for reducing the retting period using a bacterial cocktail Viz. ‘coirret’. It is claimed that, it helps besides in the period of retting and assists to improve the quality of unretted brown fibre. Under this method the bundles of brown fibre produced from combing mills from Tamil Nadu or elsewhere are put into water in cement Tank and allowed to be there for 72 hours with chemical
coirret. After the water is drained out the resultant fibre is claimed to have almost the same quality of natural fibre.

5.1.2 Extraction of White Fibre

Extraction of white fibre involves the following processes,

1. Taking out of retted husk

   After natural retting, the husks are taken out of water and washed to get rid of mud and dirt.

2. Peeling

   After Natural retting the outer skin is then peeled off before beating.

3. Husk Beating

   After peeling, the husks are placed on wooden blocks and beaten with a wooden mallet or iron rods till the fibres are separated from rotten pith and are then manually sifted. It is unhygienic hard work, usually done by women. One person can beat 100 husk per day. While beating, the whole body will be covered with pith and smells foul. If the decomposed husks are not exposed to the sun for long, the extraction becomes difficult and the colour of the fibre darkens. The fibre so extracted is cleaned and then spread in shade for drying and occasionally beaten and tolled up with poles to remove the remnants of pith and impurities still attached to the fibre.
4. Willowing

For making superior type of fibre, especially for spinning, the fibre so obtained is combed in especially designed combing or willowing machine which consists of a number of knives with saw-like teeth mounted on a wooden shaft set spirally and it is rotated by hand or motor.

5.1.3 Mechanised Husk Beating

The fibre from the retted husk is also extracted mechanically with husk beating machine. The retted husk is passed between rollers and then the crushed husks are torn on rolling cylinders with nails on the cylinder casting. The raw coir fibre, thus obtained, is further cleaned by means of blowing fans. The machine helps to soften and remove the last traces of pith on the fibre and the processed fibre are clean. With a husk beating machine 10000 retted husk can be beaten up per day with 15HP Motor.

5.2 Brown Fibre

5.2.1 Extraction of Brown Fibre

Brown fibre is extracted from ripe dry husk or partially retted husk by the mechanical defibreing. These husks are fed into revolving drums provided with upright spikes of high carbon steel which tear out the outer skin and some of the pith, leaving the long coarse fibre. The accumulated mixed fibre that get piled up by the side of the machine are further processed in the willowing machine and separated into different grades. Brown fibre is extracted from ripe dry husk by the mechanical defibreing. It is having a brown colour and is of
poor quality. It may be of two types - ‘Bristle’ and ‘Curled’. The bristle fibre is thick and long and is used for brush making. The ‘Curled’ fibre is shorter staple and finds in the upholstery, mattresses etc.

5.2.2 Yield of fibre from husk

The yield of fibre is subject to considerable variation depending upon the season, method of extraction and quality of fibre produced. The yield from retted husk is more than that from unretted husks. The husk of coconut produced (riped) between the months of January to April is capable of getting top range yield. Taking all these variations into consideration, the average yield of white fibre from 1000 full husks in India is estimated at 81.8 kg. But Govt. of India (1999 - 2000) revealed that in Kerala the fibre - husk ratio is 86.72 kg. from 1000 husk, but it is 110 kg, 65.13 kg, 122 kg in Tamil Nadu, Andhra and Karnataka respectively.

5.2.3 Spinning of Coir Yarn

The spinning of coir yarn is a traditional cottage industry in India and is mostly concentrated in the backwater area where natural retting is available. Spinning processes may be hand spinning, ratt spinning or wheel spinning and machine spinning.

5.2.3.1 Hand Spinning

In hand spinning, fibre is rolled between the plams with a clockwise twist into strands of short length, when sufficient quantity is made for the work
of a day, the strands are taken in pairs and twisted together in the opposite
direction to form a 2 - ply yarn are joined together one after another by
continuing the counter twist using both palms till the required length for knot
or mudi (6 to 18 meters) is reached. The yarn is then reeled in the form of a
hank and a knot is made at the end. One worker is estimated to produce about 2
to 2.5kg of yarn per day. Hand spun is soft and has uniformity of twist and
thickness. This is considered as the top quality yarn. Since it is not
remunerative the workers are not ready for doing this work. More over the coir
workers skilled in hand spinning are also rare.

5.2.3.2 Ratt (wheel) Spinning

In ratt spinning two ratts are used – one ratt with two spindles are fitted
to a stationary stand and the other one with one spindle is mounted on wheels
and can be moved forward and backward. In the actual working, one boy or girl
rotates the wheel on the stationary stand by rotating a handle fixed to its axis.
Two adults make the strands by hooking short length of fibre stands on to the
spindles of the stationery ratt and walking back, delivers the fibre continuously
to form stands of uniform thickness. During this process, the stationary ratt is
made to rotate continuously to give the necessary twist to the stand. When the
two adults complete a length of about 15 - 18m.of the strand each, the rotation
of the stationery wheel is stopped. The two ends of the single stands are then
joined together and hooked to the spindle of the movable ratt. One adult worker
takes charge of this movable ratt and it is now slowly rotated to give the two
strands yarn a twist in a direction to that of the single stands. The other worker in charge of the yarn who moves forward towards the stationary wheel with a yarn guide in hand held between the two strands yarn. The yarn guide is a triangular block of wood, grooved on the sides known as ‘Achue’. It helps to regulate the counter twist, prevents knots and kinds and binds the strands very close. The worker keeps a steady movement of the yarn guide towards the stationary ratt. Followed by the forward movement of the movable ratt to allow the contraction of the yarn in the process of doubling operation. These movements are simultaneously carried out by rotation of the stationary ratt also, in order to prevent the loosening of the twist on the single strands while imparting the doubling twist by the operation of the movable wheel. This movement is controlled by experienced workers. The spun yarn lengths of 12 to 15 m are reeled into hanks. About 100 stands of 15 m each weighing about 15 kg can be produced per day.

This is the popular method of yarn spinning. However, it does not possess the evenness and softness of the former type of yarn. The inherent defect of this method is that it requires a long open yard, the length of which limits the maximum length of the strands, which may come around 15 meters. Therefore the process of production is also interrupted during monsoon to those who are not having such a lengthy shed. The grading of coir yarn, is made according to colour, runnage, moisture content and the presence of sand, salt etc. A large number of yarn types are available in India and are recognized according to its place of manufacture.
5.2.3 Machine Spinning (Motorised Ratt)

Mechanized Spinning is developed by Coir Board in order to avoid unnecessary movement of coir workers, to save moving space yard, to increase productivity and to reduce the cost of production. In this method of spinning 0.5 H.P. motor is used to rotate the spindle carrying fibre strands. A basket is attached to the machine to carry the fibre. The women worker sitting alongside the machine issues fibre to the spindle and the yarn is produced by operating ‘on’ and ‘off’ position of the switch by the leg. The yarn produced by motorized ratt is rough and thick and is not attractive to users and productivity is lower than traditional method. This is because from 30 kg of fibre the yarn product will be only 20 to 22Kg whereas from traditional spinning yarn the product will be 26 to 28 kg.

5.2.4 Drying and Bundling of Yarn

Drying of yarn in the sunshine is inevitable for maintenance of quality of fibre. After proper drying the yarn is bundled weighing usually 15 Kg or 30 Kg per bundle.

5.3 Types of Coir Products
5.3.1 Coir Fibre

Coir fibre, also called as white fibre, is extracted from green natural coconut husks after retting is flowing, circulating or changed water for a period of minimum three months. However, if the fiber is made out of precrushed husks the retting period could be reduced suitably. The fiber should be
reasonably free from moisture and impurities. Coir fiber shall be graded in accordance with colour and maximum permissible impurities. Characteristics of coir fibre of various grades are presented in the following table 5.1.

Table: 5.1
Coir fibre of various grades

<table>
<thead>
<tr>
<th>Grade</th>
<th>Colour</th>
<th>Maximum impurities Percent by weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Natural brown</td>
<td>2.0</td>
</tr>
<tr>
<td>2</td>
<td>Natural light brown</td>
<td>3.0</td>
</tr>
<tr>
<td>3</td>
<td>Natural brown and / or grey</td>
<td>5.0</td>
</tr>
<tr>
<td>4</td>
<td>Natural dark brown and / or grey</td>
<td>7.0</td>
</tr>
</tbody>
</table>

Source: Coir Board, Cochin.

5.3.2 Coir Yarn

Yarn is made out of fiber extracted from coconut husk. Different yarn varieties hand or wheels made are used for geotextile manufacturing. Some of the yarns are wheel - spun while others are hand - spun. Hand - spun yarn is twisted rather loosely as compared with those spun by wheel. Most of the yarns are prepared from retted husks, while some coarse and inferior types are made from non retted husks. Over 100,000 households are engaged in the spinning of coir yarn. Coir yarn spinning is mainly carried out using traditional manual way. Though mechanized ways have been introduced aiming at reducing drudgery, improved productivity and quality, a versatile spinning device is yet to be developed. While mechanization represents the future of coir industry, there is a need to develop an appropriate technology to mechanize the spinning
while minimizing labour displacement. From the retted fiber mainly two type of yarn is produced - Export Hunks and Bobbins. Coir yarn has been made from the retted fiber by using either manual or mechanical method. The coir yarn is of different quality/grades based on the quality of fiber used, the nature of twist, presence of twist, etc.

5.3.3 Coir Rope

The fiber prepared from the husk of the coconut, used in making rope and matting. Coir Rope making is a common cottage industry in India. Generally members of a family work together in their home. They actually work outside, somewhere with plenty of space to stretch out the lengths of rope and preferably under the shade of big trees. The coconut fiber is attached to hooks on a wheel that is turned by hand. This twists the coir while more is added. It forms a strong rope that doesn’t unwind or break.

Coir rope has many uses, including tying up animals, securing loads, and webbing for beds. Coir fiber is also used to make other things like brushes, doormats, mattress filling, padding inside furniture, sacking, garden twine, and matting for pot plants and gardens. Products made from good quality coir absorb water without weakening the fibers. Coir is the only natural fiber that resists damage by salt water. Long strands of the coir rope are sometimes rewound into heavy ropes. This has been used for the last 200 years to tie the ships at the docks. The general requirements of three types of coir ropes for which standards have been specified are as follows,
a) Two grade of Hawser – laid (3 strand) coir ropes of diameter 8 to 176 mm and with a liner density from 47 to 15720 ktex (g/m) for dry coir rope and from 60 to 21112 ktex (g/m) for oiled coir rope;

b) Two grades of shround – laid (4 strand) coir ropes of diameter 24 to 176 mm and with liner density from 321 to 27170 ktex (g/m) for dry coir rope and from 437 to 23257 ktex (g/m) for oiled coir rope; and

c) Two grades of Cable – laid (9 strand) coir ropes of diameter 48 to 176 mm and with liner density from 1010 to 13335 ktex (g/m) for dry coir rope and from 1371 to 17184 ktex (g/m) for oiled coir rope.

5.3.4 Coir Pith

Coir pith blocks are 100% organic and natural growing media. Coir pith is a multipurpose growing medium. Hydroponic growers can use Global International coir pith as a natural soil-less growing medium to produce high yielding quality vegetables and cut flowers. Coir pith is increasingly being used instead of rock wool and peat moss as a hydroponic growing medium. Coir pith is also termed as coco peat. Coir pith is the outside layer of husk that surrounds the shell of the coconut. It consists mainly of fibers, which have traditionally been used to manufacture ropes, carpets, door mats etc. Between these fibers is a corky substance called Coir Pith. This has recently been widely recognized as a superior growing medium to grow tomatoes, roses and many other crops. The horticulture industry often calls this substrate coir pith.

The entire coconut husk is soaked in water and the fibers removed at the fiber factory for the production of brushes, rope, carpet, matting, etc. The coir
pith is unused and becomes a by-product of the fiber factory process. Depending upon many factors including the local climate, the soaking method and particular processes used in the coir fiber factory, the coir pith may be suitable for horticulture use.

### 5.3.5 Rubberized Coir

Coir fibre is elastic enough to twist without breaking and it holds a curl as though permanently waved. Machine twisted fiber is produced by blending bristle and mattress fibers in varying ratios. They are then spun and curled into a thick single-ply rope. This is used in producing rubberized coir sheets. The unique feature of high density rubberized coir bare sheet plant is that it facilitates Vertical fiber Orientation (VFO), a process that results in a deeper penetration of latex into the coir sheet, making it very classic. This state of the art technology provides uniform density and extra cushioning effect to our rubberized coir sheets. The high density rubberized coir pads/sheets produced by us are used as top layer spring mattress, packing pads, weed control mats/mulch mats, drainage filters, tree bark guards and air conditioner filters around the world.

### 5.4 Production of coir Industry in Kanyakumari district

The coir industry in Kanyakumari district has assumed very great importance due to its potentiality to give a fillip to the growth of the small industrial units. They are provider of jobs, as the unemployed and underemployed could swear. They are generally labour intensive and the
employment-generating capacity of the industry. Apart from this the units play a very crucial role in raising the standard of living of the people especially of those living in the rural and the backward areas. Hence an attempt has been made in this section to analyse the trend and growth of the coir industry in terms of number of units registered their production, investments made and employment generated in Kanyakumari district.

5.4.1 The Analytical Framework

In order to analyse the growth of coir industry in Kanyakumari district in terms of units registered, investments made, employment generated and the total value of production over the period under study, a linear trend is fitted by using the Least square method and the following form of trend equation has been used.

\[ Y = a + bt \]
\[ \log Y = a + bt \]

Compound growth rate = \[ ((\text{anti log } b - 1) \times 100] \]

5.4.2 Growth of Coir Industry in Kanyakumari District

The growth of coir industry in Kanyakumari has been analysed in terms of various growth parameters, namely number of units both registered and unregistered, investment made, production achieved and employment generated during the period from 2000-2001 to 2011-2012 and they are presented in table 5.2.
### Table 5.2
**Growth of Coir Industry in Kanyakumari District**

<table>
<thead>
<tr>
<th>Year</th>
<th>No. of Units</th>
<th>Total Investment (Rupees in lakhs)</th>
<th>Employment (no of Persons Employed)</th>
<th>Total Production (in tonnes)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000-2001</td>
<td>840</td>
<td>1,257</td>
<td>8667</td>
<td>99.83</td>
</tr>
<tr>
<td>2001-2002</td>
<td>866</td>
<td>2,332</td>
<td>8674</td>
<td>99.61</td>
</tr>
<tr>
<td>2002-2003</td>
<td>872</td>
<td>3,442</td>
<td>8576</td>
<td>100.60</td>
</tr>
<tr>
<td>2003-2004</td>
<td>873</td>
<td>4,556</td>
<td>8682</td>
<td>120.37</td>
</tr>
<tr>
<td>2004-2005</td>
<td>890</td>
<td>7,200</td>
<td>8743</td>
<td>132.77</td>
</tr>
<tr>
<td>2005-2006</td>
<td>912</td>
<td>10,200</td>
<td>8761</td>
<td>145.91</td>
</tr>
<tr>
<td>2006-2007</td>
<td>945</td>
<td>12,670</td>
<td>8856</td>
<td>154.25</td>
</tr>
<tr>
<td>2007-2008</td>
<td>956</td>
<td>14,520</td>
<td>8871</td>
<td>160.76</td>
</tr>
<tr>
<td>2008-2009</td>
<td>964</td>
<td>15,120</td>
<td>8897</td>
<td>165.68</td>
</tr>
<tr>
<td>2009-2010</td>
<td>978</td>
<td>17,200</td>
<td>9344</td>
<td>168.45</td>
</tr>
<tr>
<td>2010-2011</td>
<td>983</td>
<td>18,820</td>
<td>9540</td>
<td>170.89</td>
</tr>
<tr>
<td>2011-2012</td>
<td>995</td>
<td>19,350</td>
<td>9648</td>
<td>172.38</td>
</tr>
<tr>
<td>2012-2013</td>
<td>1005</td>
<td>20,845</td>
<td>9632</td>
<td>180.54</td>
</tr>
</tbody>
</table>

**Source:** Unpublished Records of Coir Industries Association, Nagercoil.

It could be observed from the table 5.2 that the number of coir units had risen from 840 units in 2000-2001 to 1005 units by the year 2012-2013. During the period from 2000-2001 to 2012-2013, the total investments made grew from Rs.1,257 lakhs to Rs.20,845 lakhs. The employment offered by the units of the coir industries had increased from the level of 8667 persons in 2000-2001 to the level of 9632 persons by the year 2012-2013. The production which was 99.83 tonnes in the year 2000-2001 had increased to 180.54 tonnes by the year 2012-2013. The following figures clearly explain the trend values of the various growth parameters.
Figure 5.1
Number of coir units registered and unregistered in Kanyakumari district

Figure 5.2
Total Investment of coir units in Kanyakumari district
Figure 5.3
Total Employment of coir units in Kanyakumari district

\[ y = 9.031e^{0.001x} \]
\[ R^2 = 0.834 \]

Figure 5.4
Total Production of coir units in Kanyakumari district

\[ y = 4.570e^{0.011x} \]
\[ R^2 = 0.894 \]
The calculated values of the trend and the growth rates of the number of units registered, the amounts invested, the employment generated and production of the units of the coir industry in Kanyakumari district are presented in Table 5.3.

**Table 5.3**  
Trend and growth rates of coir industry in Kanyakumari district

<table>
<thead>
<tr>
<th>Sl. no</th>
<th>Particulars</th>
<th>Trend Co-efficient</th>
<th>R²</th>
<th>CGR</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>a</td>
<td>b</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Number of units</td>
<td>231.42 75.15*</td>
<td>0.969</td>
<td>14.64</td>
</tr>
<tr>
<td>2</td>
<td>Total Investment</td>
<td>281.06 17.54*</td>
<td>0.858</td>
<td>5.10</td>
</tr>
<tr>
<td>3</td>
<td>Employment Generated</td>
<td>1337.34 24.14*</td>
<td>0.834</td>
<td>1.69</td>
</tr>
<tr>
<td>4</td>
<td>Total Production</td>
<td>325.68 13.14*</td>
<td>0.894</td>
<td>3.48</td>
</tr>
</tbody>
</table>

Source: Computed data  
* Significant at 5 per cent level  
Figures in brackets represent t-values.

It could be seen from the table 5.3 that the trend co-efficient for all the parameters selected for the study to measure the growth rate are statistically significant and positive. The highest growth rate 14.46 per cent is found in the case of the number of units registered. This was followed by the investment made, production and employment which constitute 5.10 per cent, 3.48 per cent and 1.69 per cent.
5.5 Channels of Coir Marketing

5.5.1 Domestic Market

There are a series of intermediaries engaged in the various stages of coir marketing. Actually the Indian coir industry has developed on the initiative, enterprise and financial backing of innumerable middlemen. No other traditional industry in India has so many intermediaries functioning in the chain of marketing. Therefore it is desirable to examine the various intermediaries engaged from the collection of input to its final distribution point.

5.5.2 Husk Collector

Husk collector’s main occupation is collection of husk, which is the primary raw material for coir industry. Husk collector collects husk from door to door of small scale coconut producers and carries them in baskets. Husk collector is considered a ubiquitous figure in all the coconut growing areas. Coconut merchants who deal in bulk also take part in the collection of husk. They turn it over to the village husk dealers in large quantities.

5.5.3 Coconut Merchants

In villages coconut merchants and copra producers purchase coconuts directly from cultivators. After dehusking coconut they sell the husk either to dealers or retters in large quantities. After two or three days of dehusking the green husk will become dry. This dried husk is known as ‘Thondu’ and it is difficult to rett. Since copra producer’s activities are influenced by fluctuation in the oil market dehusking is often delayed and hence the husk is wasted.
5.5.4 The Capitalist Husk Dealer

Husk dealers procure husk from village farms and coconut merchants through a number of agents in the countryside. The collected husk will be sold either to retters or societies or soaked for retting in their own retting pit if they think that selling is not profitable. Capitalist husk trader’s business involves investments. But they have high bargaining power and in a way control the market.

5.5.5 Capitalist Retters

There are capitalist retters who procure husk from distant areas through husk dealers and do business on a large scale. Coir Board revealed that capitalist retted husk dealers occupy a commanding position (80 percent of retting business) in the industry. But these capitalist retters constitute only 10 percent of the total number of people engaged in retting business.

5.5.6 Output – Fibre and Yarn

The fibre and yarn produced in various centres including co-operatives are distributed through a chain of intermediaries. Wholesale dealers of fibre and yarn too supply fibre and yarn to the manufacturer, to the internal market for consumption and to the export trade. Co-operatives also feed all these three lines of business. The major consumers of fibre and yarn are manufactures of mats and mattings, Coir Co-operatives, Marketing Federation and Foreign
markets. For feeding all these channels, there are several intermediaries functioning from small range to higher range.

5.5.7 Village Middlemen

Village middleman is a person who buys fibre or yarn from coir households or cottage industry units and passes it on either to village merchants or to agents or representatives of wholesale dealers and manufactures. He also purchases retted husk and distributes it among cottage workers at a specified price and buys back the yarn produced by cottagers. The majority of the sales are confined to the same locality. These middlemen are only a small link in the long chain of intermediaries.

5.5.8 Village Merchants

In the center place of village there may be a village merchant for coir yarn. Really he may be a grocer and does side business in coir. In a ‘Coi hand spinning household, invariably there will be a member who will be engaged in hand spinning of coir yarn either on a part-time or full-time basis. Such persons sell their produce in the evening market to the village merchants to meet their household requirements of groceries. These merchants who buy coir produce from the evening market as well as from middlemen and sell it to commission agents. The commission agents in turn send their consignment to big market places.
5.5.9 The Whole sale Bazaar Dealer

The Wholesale Bazaar Dealer owns huge godowns. He is also financially sound. He generally controls the price of coir yarn. But his business involves risk as the yarn market is so transient. The transient nature of the market causes high price fluctuations resulting in huge loss or windfall incomes.

5.5.10 Godown Owners

The godown owner makes arrangements for stocking different kinds of yarn. They generally pay approximately 50 percent of the value of yarn to the dealer or producer from whom they collect yarn for store. Then they sell the yarn on behalf of the original owners and the value so realized is paid to the owner after deducting their commission, interest and other charges which comes to about 2 to 4 percent of the sales price. Godown owner’s business is less risky compared to that of whole sale Bazaar Dealer.

5.5.11 Brokers or Commission Agents

Brokers and Commission Agents are employed by wholesale dealers in the major coir yarn business cities like Alappuzha and Kochi. These agents are working in major producing areas to purchase and store fibre and yarn from producers as well as local merchants in accordance with their requirements. They get commission and act as a liaison between or among the producers, dealers, the godown keepers and the ultimate purchasers. Some big factories
depute factory representatives as their agents to important coir producing centres for making direct purchase from the local open market and many of them have own local depots also.

5.5.12 Primary Coir Co-operative Societies

The primary coir Co-operatives also act as an important link in the chain of marketing of coir fibre and yarn. The business operations of coir primary societies comprise of purchase of raw husk, retted husk and fibre for processing and sale of fibre and yarn to central Marketing Societies. Manufacturing activities are carried out either in the yard of societies or at the residence of members. The manufactured articles will be kept in godown of societies before selling to COIRFED.

5.5.13 The Tamil Nadu State Coir Corporation

It is a state owned company, manufacturing coir products. It purchases coir yarn from small - scale producers and coir co - operatives. Production of coir products is carried out either in their own units or through their accredited small-scale manufacturers who produce products as per Corporation’s specifications.

5.5.14 Hindustan Coir Mattings

The Hindustan coir mattings was established as the result of a pioneering effort of the Coir Board. It was with the objective of mechanization of the manufacturing process and development of industry on modem lines this
was established. It started production in 1968 with five imported looms with ancillary winding machines. Coir yarn required for the factory is procured from COIRFED as well as from private parties. Dyeing of coir yarn is done through the Dye House of Central coir research Institute. Coir Board showrooms located in different cities of India serve as major marketing points of Hindustan coir mattings.

5.6 Export Market - Channel

A number of intermediaries are involved in the export sector also. The Shippers, Bazzar, dealers, Brokers, Commission Agents, Factors, Forgien representatives and Export – Freight – Forwarders are important among them. There are also manufacturers who combine manufacturing activity with export trade.

5.6.1 The Shipper

The shipper is an outgrowth of the commission agent during the thirties. Some shippers have specialized in speculative trade. They, however, occasionally undertake export trade also with a view to keeping in close contact with the foreign markets, which helps their speculative business in the domestic market. However, the share of their export trade to total business turnover is insignificant.
5.6.2 Bazaar dealers

Bazaar dealers are pure speculators who keep themselves away from export trade. The emergence of a class of bazaar dealers or the speculative dealers, as they are often referred to, was the result of wide fluctuation in the prices of coir goods.

5.6.3 Brokers

Brokers constitute another important link in the Alappuzha and Cochin coir markets. With the expansion of export trade in coir manufactures, there arose the need for an intermediary between the buyers and the sellers. They help in finding out buyers for various types of manufactures. The brokers also possess technical knowledge of export of coir goods and have intimate knowledge about the foreign and domestic market. They also guarantee the fulfillment of the contract terms by the buyer and the factory.

5.6.4 Commission Agents

Commission agents are middlemen who buy and sell for importer or exporter of coir goods in return for a commission. They have expert knowledge of the commodities in the field of trading.

5.6.5 Factors

The factors are chiefly small operators. They are essentially middle – men who act as a link between the actual producers and the shippers. Factors canvass orders from overseas buyers and purchase from manufactures.
are many small factories who supply their products to the manufactures – Shippers and to the factors.

5.6.7 Foreign representatives

In respect of commodities whose volume of trade does not warrant the establishment of a branch or subsidiary, the agents or foreign representatives are found to be the most suitable channel of distribution. They are agents, distributors or dealers.

5.6.8 Intermediaries in Foreign Countries

In the buying countries, there are various intermediaries engaged in handling transactions before it reaches the agents of distribution, dealers and the ultimate consumers. Important among them are,

1. The customs house brokers
2. The commission agents.
3. Importers.
4. Buyers associations
5. Wholesalers and
6. Retailers.

After analyzing the intermediaries in coir goods trade it is pointed out by Heydon that there are far too middlemen who make profit before the yarn reaches the merchant. As the manufacture of coir industry is a cottage industry of a scattered character, the middlemen appear to be necessary.
5.7 Marketing Strategies

For the purpose of analysis, the coir industry under study have been classified into three location-wise industry categories namely urban, semi-urban and rural based industry. The essence of marketing strategy is to provide the industry with a suitable competitive advantage in the markets in which its operators. This requires that the industries both understands consumer needs and identifies how those consumers can be grouped into different market segments. The marketing strategies may be related to its product, pricing, physical distribution and promotion.

5.7.1 Product Strategy

The product strategy especially related to variety of the product offered by the industry. Since the present study focuses on marketing of coir only, it includes the category of industry such as urban, semi-urban and rural based industry. Under product strategy, the extent to which the industry are interested in designing the product and the variables to be considered for product strategy. Even though, there are so many variables considered for designing product strategy, the present study confines these variables into six namely, product identification, attraction, brand preference, need based products, immediate delivery and quality packing as they are very important in affecting the products.

The mean score of these variables has been computed to analyse the extent to which the industries considered the variables in designing their
product strategy. One way analysis of variance (ANOVA) has been administered to analyse the significant difference among the three groups of industries regarding the importance given to these variables. Table 5.3 presents the results of one way analysis of variance (ANOVA) relating to product strategies.

Table 5.4
Association between category of Industry and Variables relating to product strategy

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>Variables</th>
<th>Mean Score among Industry in F - Statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Product identification</td>
<td>Urban: 3.0678, Semi-Urban: 3.2381, Rural: 3.1176, F-statistic: 1.0349, Level of Significance: 0.3481</td>
</tr>
<tr>
<td>2</td>
<td>Attraction</td>
<td>Urban: 3.3390, Semi-Urban: 4.3333, Rural: 3.4412, F-statistic: 2.5877*, Level of Significance: 0.0182</td>
</tr>
<tr>
<td>4</td>
<td>Need based products</td>
<td>Urban: 3.1186, Semi-Urban: 3.2381, Rural: 3.1176, F-statistic: 0.8105, Level of Significance: 0.2311</td>
</tr>
<tr>
<td>5</td>
<td>Immediate delivery</td>
<td>Urban: 4.1864, Semi-Urban: 3.1905, Rural: 4.2362, F-statistic: 5.3541*, Level of Significance: 0.0000</td>
</tr>
</tbody>
</table>

* Significant at 5 per cent level.

It is inferred from the table 5.4 that the highly considered variables in the product strategy of the coir industry in urban area are packing, brand preference and immediate delivery. The respective mean scores are 4.3852,
4.3542 and 4.1864 respectively. In the case of semi-urban industries, the highly considered variables relating to product strategy are more attraction and brand preference since the respective mean scores are 4.3333 and 4.0952. In the rural based coir industry, the highly considered variables such as brand preference, packing and immediate delivery since the respective mean scores are 4.4529, 4.2367 and 4.2362. The significant difference among the three category of coir industry is identified regarding the importance given on the variables namely brand preference, immediate delivery, and packing since the respective ‘F’ statistics are significant at five per cent level.

5.7.2 Pricing Strategy

The pricing strategy includes so many variable factors. The present study derived some variables related to the pricing strategy such as reasonable price, discount to dealers, payments in installment, easy payment and less advance amount. The respondents are asked to rate the above said variables at five point scale according to their order of importance given in their pricing strategy. Table 5.5 shows the results of one way analysis of variance (ANOVA) relating to price strategies.
Table 5.5
Association between category of industry and Variables relating to price strategy

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>Variables Factors</th>
<th>Mean Score among Industry in</th>
<th>F - Statistics</th>
<th>Level of Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Urban</td>
<td>Semi-Urban</td>
<td>Rural</td>
</tr>
<tr>
<td>1</td>
<td>Reasonable price</td>
<td>4.3902</td>
<td>4.2553</td>
<td>4.4576</td>
</tr>
<tr>
<td>2</td>
<td>Discount to dealers</td>
<td>3.7705</td>
<td>3.5556</td>
<td>3.5632</td>
</tr>
<tr>
<td>3</td>
<td>Payment in instalment</td>
<td>3.8197</td>
<td>3.1553</td>
<td>4.3511</td>
</tr>
<tr>
<td>4</td>
<td>Easy payment</td>
<td>3.9016</td>
<td>4.3254</td>
<td>3.5671</td>
</tr>
<tr>
<td>5</td>
<td>Less Advance amount</td>
<td>3.6885</td>
<td>3.0055</td>
<td>3.8679</td>
</tr>
</tbody>
</table>

* Significant at 5 per cent level.

It is found from the table 5.5 that the mean score of the variables in pricing strategy and its respective ‘F’ statistics. The important variables in pricing strategy of the urban based coir industry are reasonable price. The respective mean score for the above mentioned industry are 4.3902 and 4.3361 respectively. In case of semi-urban based coir industry, the variables such as easy payment and reasonable price which constitute a mean score of 4.5556, 4.3254 and 4.2553 respectively. In case the rural based coir industry, the variables such as reasonable price and payment in instalment are highly related to price strategy in the study area which constitutes 4.4576 and 4.3511 respectively. Regarding the importance given by the respondents, the significant difference among the three categories of coir industry is identified
in importance given on reasonable price, easy payment, and less advance amount since the respective ‘F’ statistics are significant at 5 per cent level.

5.7.3 Place strategies

The place strategy indicates various aspects of distribution of coir industry. The variables related to place strategies of location of units, workers co-operation, area coverage, attitude of the workers, informative workers, satisfied workers, nearest for workers. The respondents are asked to rate the above said variables at five point scale according to the order of importance given. The results of one way analysis of variance (ANOVA) relating to place strategies are presented in table 5.6.

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>Distribution Variables</th>
<th>Mean Score among Industry in</th>
<th>F - Statistics</th>
<th>Level of Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Urban</td>
<td>Semi-Urban</td>
<td>Rural</td>
</tr>
<tr>
<td>1.</td>
<td>Location of the including</td>
<td>3.2000</td>
<td>4.8519</td>
<td>4.2667</td>
</tr>
<tr>
<td>2.</td>
<td>Workers co-operation</td>
<td>4.0571</td>
<td>3.8519</td>
<td>3.2020</td>
</tr>
<tr>
<td>3.</td>
<td>Area coverage</td>
<td>2.6857</td>
<td>3.6667</td>
<td>3.1244</td>
</tr>
<tr>
<td>4.</td>
<td>Friendly attitude of the workers</td>
<td>3.3714</td>
<td>3.2555</td>
<td>2.6667</td>
</tr>
<tr>
<td>5.</td>
<td>Informative workers</td>
<td>3.3714</td>
<td>3.5185</td>
<td>2.8000</td>
</tr>
<tr>
<td>6.</td>
<td>Satisfied workers</td>
<td>3.7143</td>
<td>3.3704</td>
<td>2.6667</td>
</tr>
<tr>
<td>7.</td>
<td>Nearest for workers</td>
<td>3.3474</td>
<td>3.1385</td>
<td>3.4500</td>
</tr>
</tbody>
</table>

* Significant at 5 per cent level.
It is understood from table 5.6 that the important variables considered under place strategy in urban based coir industry are protective control measures, protection for workers and workers co-operation and the respective mean scores are 4.4143, 4.3053 and 4.0571 respectively. In the semi-urban based coir industry, the variables such as location of the factory, protection for workers and protective control measures are highly related to place strategy. In case of rural based coir industry, the variables such as protective control measures, protection for workers and location of the industry are considered highly related variables which constitute a mean score of 4.6667, 4.3073 and 4.2667 respectively. Regarding the perception on the place strategy variables, the significant difference among the three categories of industry is identified in the perception on the variables namely location of factory, workers co-operation, nearest location to customers, satisfied workers since the respective ‘F’ statistics are significant at five per cent level.

5.7.4 Promotional Strategies

The present study derived some variables related to promotional strategy such as advertisement, flexibility in payment, flexibility in installment, better service and co-operation of workers. Table 5.7 depicts the results of one way analysis of variance (ANOVA) relating to promotional strategies.
## Table 5.7
Association between category of industry and Variables relating to promotional strategy

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>Distribution Variables</th>
<th>Mean Score among Industry in ( F - ) Statistics</th>
<th>Level of Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Urban</td>
<td>Semi - Urban</td>
</tr>
<tr>
<td>1.</td>
<td>Advertisement</td>
<td>4.1158</td>
<td>4.1231</td>
</tr>
<tr>
<td>2.</td>
<td>Flexibility in payment</td>
<td>3.7053</td>
<td>3.0492</td>
</tr>
<tr>
<td>3.</td>
<td>Flexibility in installment</td>
<td>3.9647</td>
<td>3.1818</td>
</tr>
<tr>
<td>4.</td>
<td>Better service</td>
<td>3.2824</td>
<td>4.3485</td>
</tr>
<tr>
<td>5.</td>
<td>Co-operation of workers</td>
<td>4.1765</td>
<td>4.3030</td>
</tr>
</tbody>
</table>

* Significant at 5 per cent level.

It is seen from table 5.7 that the important promotional variables considered in urban based coir industry are prompt delivery, co-operation of workers, and advertisement. The respective mean scores are 4.6882, 4.1765, 4.1158 and 4.0737 respectively. In the semi-urban based coir industry, the variables such as better service, co-operation of workers, advertisement are highly related to promotional strategy in the study area. In case of rural based coir industry, only two variables such as better service, flexibility in payment and advertisement are highly considered related variables which constitute a mean score of 4.7889, 4.4667 and 4.0034 respectively. Since the respective ‘F’ statistics are significant at five per cent level.