International Journal of Advanced Trends in Engineering and Technology (IJATET)
Impact Factor: 5.665, ISSN (Online): 2456 - 4664
(www.dvpublication.com) Volume 2, Issue 1, 2017

A STUDY ON THE PROBLEMS AND PROSPECTS OF COIR INDUSTRY IN POLLACHI, COIMBATORE DISTRICT

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Cite This Article: S. Poornimadevi, "A Study on the Problems and Prospects of Coir Industry in Pollachi, Coimbatore District", International Journal of Advanced Trends in Engineering and Technology, Page Number 87-92, Volume 2, Issue 1, 2017.

Abstract:
Coir industry is an important agro-based employment-oriented traditional cottage industry in India. India is a largest coir producer in the world accounting for more than 80% of the total world production of coir fibre. Kerala is the largest producer of coir and coir products in India. Coir Industry is an export and employment oriented industry which originated in Kerala and is spreading to other coconut growing states of India. The value addition in products has been focused on the demands of export market. The future of coir industry depends on non-conventional products. The major problems of coir industry faces today not aware of the production of value added products. The coir board need to create awareness and provide training, guidance and encourage to the manufacture to produce value added products.

Key Words: Coir, Prospects, Problems, Value Added Product & Fibre

Introduction:

India is the largest producer and exporter of coir and coir products. At present, coir and its products are exported to more than 80 countries, with United States of America being the biggest market with a share of more than 40% of total export. Coir geo- textiles and pith are likely to be the major item slated to pick up substantially in the coming years. Coir pith is eco-friendly characteristics. They are being usually effectively used for improving soil behaviors, preventing soil erosion, and in helping consolidation of soil. Coir is a 100% organic and bio-degradable fiber which has great water absorbency and has a definite edge over synthetic geo textiles, in the environmental aspect and issues. Coir product making is an important cottage industry, contributing significantly to the economy of the major coconut growing states such as Kerala, Tamilnadu and Andhra Pradesh. Pollachi is rural village in Coimbatore district in Tamil Nadu. Pollachi is basically agricultural society focused in coconut cultivation. As coconut cultivation is the major forming activity in to existence very early stage. More number of industries are on production of coir pith and fiber only form in this village. In the same stream value added product such as mat, bag, doors, floor covering Geo textiles, etc.

History of Coir Industry:

Ropes and cordage made from coconut fiber has been in use from ancient times. Indian navigators, who sailed the seas to Malaya, China and Golf of Arabia centuries ago, used coir for their ship ropes. Arab writers of the 11th century AD referred to the extensive use of coir for ship ropes and rigging. A coir industry in the UK was recorded prior to the second half of the 19th century. During 1840, captain Logan and Thomas Trelore, founded the well-known carpet firm of Treloar and sons in Ludgate Hill, England, for the manufacture of coir floor covering. Coir industry occupies a unique place among the rural traditional cottage industries in India. The state of Kerala, also known as the 'Land of coconuts', is the largest producer of coir in India. It accounts for more than 75% of the total production. Alleppey (Alappuzha in Malayalam)is the nerve Centre of Kerala's famous coir industry. Here one can see coconut husks being beaten into fiber for making beautiful mat sand other coir products. Both men and women are actively involved in the production of coir. The women are mainly involved in the yarn spinning sector and the men in the product- weaving sector. Coir industry enjoys the status as the largest cottage industry in Kerala, giving employment to over a million people. Kerala also has a very fine natural harbor located at Cochin. From the ancient times itself Cochin had found a place in the minds of Europeans as attracting Centre because of its port and spices.

Review of Literature:

Christy Fernandez (2003) analyzed India is major exporter of value added coir goods. The R&D efforts in India have been successful in developing many new products, could be utilized for a variety of applications that are cost effective and environment friendly, capacity building and quality up gradation of the widely scattered house hold production units are critical in improving the domestic coir industry prevent unhealthy competition, offer directions for production including a supply side management and take up issues of common interest the survival of coir industry depends on its ability to adapt itself quickly to the fast changing consumer preference and widening choices. Whether for domestic of export purposes, the coir sector has to diversity, keep the quality of products and service high ensure cost effectiveness.

Dr. S. Sudalai Muthu &R.Anitha (2007) an attempt had been made to analyze the coir products have been of great demand in countries like china, Germany and European countries. In most of the European countries coir s used in the automobile industry as seating material most of the expensive cars like Mercedes Benz and BMW in Germany and Volvo in Sweden use Rubberized coir as seating material apart from this it is

also used in other vehicles like trucks, buses, railway, and subway coaches. There is also a very great and diverse demand for using it as bedding and upholstery material in Europe and the United States.

Dr. K. Ramamurthy, G. Brintha K. Kanimozhi.(2013) had coir exports facing challenges of first, the quality of coir products is often difficult to maintain because of the very natural and availability of raw materials like fibre, yarn, dyes and chemicals. Besides the production infrastructure in India is obsolete and often in dilapidated condition. Second think is inadequate, ready- to- use information keeps the manufacturers mostly running small units, ignorant of the market conditions and consumer preferences. The third on of major problem is the coir industry faces today is the inadequate R&D efforts for product development and diversification.

Objectives:

The overall objective of the study is to identify the problems and prospects of coir industry in Pollachi to explore new avenues to develop the sector with multifaceted scope. The specific objectives are,

- ✓ To study the problems faced by coir industry.
- ✓ To analyze the prospects of coir industry.
- ✓ To identify the new avenues to be exploited by the coir industry

Research Methodology:

The study analyzes the problems and prospects of coir industry in Pollachi Taluk. The collection of data is based on Primary and secondary data. The present study has been mainly based on simple random sampling method. Primary data will be collected by issuing the questionnaire directly to100 coir industrialist of interview schedule method in field survey. Processing data are analysis by using relevant statistical tools and scaling technique. Secondary data will be collected from the various published sources. To gather the data in wider perspective different stake holders shall be interviewed formally, informally etc. and more information shall be collected through brain storming sessions with experts, former and researchers in this field.

Data Analysis and Interpretation:

Table 1: Location of the Establishment

Location of the Establishment	No. of Respondents	Percentage
Rural	88	88
Semi Urban	12	12
Urban	0	0
Total	**100**	**100**

Source: Primary Data

The above table shows that the out of 100 respondents, 88% of the respondents had their establishment in rural area, 12% of the respondents had their establishment in semi urban area.

It is clear from the above table that majority (88%) of the respondents had their establishment in rural area.

Table 2: Nature of the organization

Nature	No. of Respondents	Percentage
Manufacturers	88	88
Manufacturers and Exporters	12	12
Exporters	0	0
Others	0	0
Total	**100**	**100**

Source: Primary Data

The above table shows that the out of 100 respondents, 88% of the respondents were manufacturers, 12% of them were manufacturers and exporters and there are no respondents in others. It is clear from the above table that majority (88%) of the respondents were manufacturers.

Table 3: Product produced in coir unit

Products	No. of Respondents	Rank
Coir Fibre	68	II
Coir Yarn	4	VI
Coir Rope	16	V
Curled Coir	25	IV
Coir Pith	76	I
Others	28	III

Source: Primary Data

The above table list out the rank for each variable. From the above table it is clear that coir pith is ranked 1(76), coir fibre is ranked 2(68), others is ranked 3(28), curled coir is ranked 4(25), coir rope is ranked 5(16), coir yarn is ranked 6(4).Maximum number of industry has produced coir pith and coir fibre.

Table 4: Annual Turnover in Coir Unit

Annual Turnover	No. of Respondents	Percentage
Less than Rs. 25,00,000	52	52

Rs. 25,00,000 - Rs. 50,00,000	16	16
Rs. 50,00,000 - Rs. 75,00,000	12	12
Rs. 75,00,000 - Rs. 1,00,00,000	4	4
Above Rs. 1,00,00,000	16	16
Total	**100**	**100**

Source: Primary Data

The above table shows that the out of 100 respondents, 52% of the respondents have Less than Rs. 25,00,000 of annual turnover, 16% of the respondents were Rs. 25,00,000 - Rs. 50,00,000 and above Rs. 1,00,00,000 of annual turnover, 12% of the respondents have Rs. 50,00,000 - Rs. 75,00,000 of annual turnover, and 4% of the respondents have Rs. 75,00,000 - Rs. 1,00,00,000 of annual turnover.It is clear from the above table that majority (52%) of the respondents have Less than Rs. 25, 00,000 of annual turnover.

Table 5: Export to other countries

Export to Other Countries	No. of Respondents	Percentage
Yes	4	4
No	96	96
Total	**100**	**100**

Source: Primary Data

The above table shows that the out of 100 respondents, 96% of the respondents they are not exported from their products, 4% of the respondents were export their products. It is clear from the above table that majority (96%) of the respondents didn't export they are products.

Table 6: Registered in coir board

Registered in Coir Board	No. of Respondents	Percentage
Yes	76	76
No	24	24
Total	**100**	**100**

The above table shows that the out of 100 respondents, 76% of the respondents were registered in coir board and remaining 24% of the respondents were not registered in coir board.

It is inferred from the above table that majority (76%) of the respondents were registered in coir board.

Table 7: Types of Support from coir board

Support	No. of Respondents	Percentage
Training	12	16
Guidance	20	26
Subsidy	20	26
Others	24	32
Total	**76**	**100**

Source: Primary Data

The above table reveals that the out of 76 respondents, 32% of the respondents were got training, guidance, and subsidy(others) from the coir board, 26% of the respondents were got guidance and subsidy, 16% of the respondents were got training from the coir board. It is clear from the above table that majority 32% of the respondents got training, guidance, and subsidy.

Table 8: Problems Relating to Production Problems

Kaiser-Meyer - Olkin Measure of Sampling Adequacy.		.700
Bartlett's Test of Sphericity	Approx. Chi-Square	2028.176
	df	45
	Sig.	0.000

Rotated Component Matrix:

Source	Component		
	1	2	3
Production Problems		.768	
Too much formalities for starting business		.824	
Non availability of raw material		.847	
Price fluctuation of raw material			.592
Lack of experience			.866
Lack of education			.686
Scarcity of water	.572		
Heavy power cut	.876		
Non availability of labours	.532		
Rate of wage			.732

Absenteeism			.871
Climate changes			.506

The table no. 7 indicates that KMO measure of sampling adequacy is an index to examine the appropriateness of factor analysis. High values between 0.5 and 1.0 indicate that factor analysis is appropriate. Values below 0.5 imply that factor analysis may not be appropriate.

From the above table, it is seen that Kaiser-Meyer-Olkin measure of sampling adequacy index is 0.700 and hence the factor analysis is appropriate for the given data set. Bartlett's Test of Sphericity is used to examine the hypothesis that the variables are uncorrelated. It is based on chi-square transformation of the determinant of correlation matrix. A large value of test statistics will favor the rejection of null hypothesis. In turn, this indicates that 100 factor analyses are appropriate. Bartlett's test of Sphericity chi-square statistics is 3985.29, showing the fifteen statements are correlated and hence as inferred in KMO, factor analysis is appropriate for the given data set. Requesting principal component analysis and specifying interpretation obtained output of factor analysis. There are two stages in factor analysis. Stage I is the factor extraction process, wherein the objective is to identify the number of component analysis. In stage II, there is also a true of thumb based on the computation in eign value, to determine how many factors to extract. The higher the eign value of a factor, the higher the amount of variance explained by the factor. The three factors were extracted as 78.192 per cent of the variance. The next issue of measurement was to examine the 11 adaptive selling factor indicators. A principal component analysis with varimax rotations was undertaken.

Three factors emerged. All factors loading were over 0.5 with the exception of three which were below 0.5. Factor I consisted of three (1) Production Problems, (2) Too much formalities for starting business, (3) Non availability of raw material. Factor II consisted of three (1) Price fluctuation of raw material, (2) Lack of experience (3) Lack of education. Factor III consisted of three factors (1) Scarcity of water (2) Heavy power cut (3) Non availability of labours. Factor IV consisted of three (1) Rate of wage, (2) Absenteeism (3) Climate changes.

Table 9: Gender and Production Problems

Ho: There is no significant difference between Gender and Production Problems

Source of variation	**Sum of squares**	**df**	**Mean square**	**F**	**Sig**
Between Groups	16900.078	2	8450.039	10385.942	0.000**
Within Groups	518.265	97	.814		
Total	17418.344	99			

Note: ** Denotes significance at 1% level.

The above table reveals that the p-value is less than 0.05; the null hypothesis is rejected at 1 per cent level of significance. It is concluded that there is a significant difference between Gender and production problems. (F= 10385.942; p<0.01).

Table 10: Gender and Marketing Problem

Ho: There is no significant difference between Gender and Marketing Problem

Gender	**Marketing Problem**			**Total**	**Chi-Square Value**	**df**	**p-value**
	Low	Medium	High				
Female	10	6	4	20	27.8	2	0.000**
	50%	*30%*	*20%*				
Male	23	46	11	80			
	28%	*58%*	*14%*				
Total	**33.00**	**52**	**15**	**100**			

Note: ** Denotes significant at 1 % level

The above table reveals that the p-value is less than 0.05; the null hypothesis is rejected at 1 per cent level of significance. It is concluded that there is a significant difference between Gender and Marketing Problem. (F= 1087.202; p<0.01).

Table 10: Level of satisfaction on the following aspects in your business

Satisfaction Relating to Business:

Kaiser-Meyer - Olkin Measure of Sampling Adequacy.		.604
Bartlett's Test of Sphericity	Approx. Chi-Square	3010.176
	df	45
	Sig.	0.000

Rotated Component Matrix:

Source	**Component**		
	1	**2**	**3**
Profitability	.874		

Support of Coir board	.573		
Government support	.762		
Research and Development	.5021		
Raw material availability		.621	
Acquisition of Machinery		.732	
Involvement of Middleman		.853	
Labour Availability		.531	
Quality of fibre			.791
Price paid for final output			.532
Business growth			.771
Social status			.569
Getting payment from debtors	.639		
Transportation facility	.932		
Profit	.523		
Government rules and procedures	.613		

The table no.2 indicates that KMO measure of sampling adequacy is an index to examine the appropriateness of factor analysis. High values between 0.5 and 1.0 indicate that factor analysis is appropriate. Values below 0.5 imply that factor analysis may not be appropriate.

From the above table, it is seen that Kaiser-Meyer-Olkin measure of sampling adequacy index is 0.604and hence the factor analysis is appropriate for the given data set. Bartlett's Test of Sphericity is used to examine the hypothesis that the variables are uncorrelated. It is based on chi-square transformation of the determinant of correlation matrix. A large value of test statistics will favor the rejection of null hypothesis. In turn, this indicates that 100 factor analyses are appropriate. Bartlett's test of Sphericity chi-square statistics is 3010.176, showing the sixteen statements are correlated and hence as inferred in KMO, factor analysis is appropriate for the given data set.

Requesting principal component analysis and specifying interpretation obtained output of factor analysis. There are two stages in factor analysis. Stage I is the factor extraction process, wherein the objective is to identify the number of component analysis. In stage II, there is also a true of thumb based on the computation in eign value, to determine how many factors to extract. The higher the eign value of a factor, the higher the amount of variance explained by the factor. The four factors were extracted as 87.4 per cent of the variance.

The next issue of measurement was to examine the 16 adaptive selling factor indicators. A principal component analysis with varimax rotations was undertaken. Three factors emerged. All factors loading were over 0.5 with the exception of three which were below 0.5. Factor I consisted of four (1) Profitability, (2) Support of Coir board, (3) Non availability of raw material and (4) Government support. Factor II consisted of four (1) Raw material availability, (2) Acquisition of Machinery (3) Involvement of Middleman and (4) Labour Availability. Factor III consisted of four factors (1) Quality of fibre (2) Price paid for final output (3) Business growth, and (4) Social status. Factor IV consisted of four (1) Getting payment from debtors, (2) Transportation facility (3) Profit and (4) Government rules and procedures.

Suggestions:

- ✓ To facilitate the manufacturer, the government should come forwarded and stream line the market structure
- ✓ In future there are more opportunitiesin international marketfor value added products so that the coir board and related organization should come forward uplift the industry.
- ✓ More financial assistances are expected for value added product manufacturing process so the government has to take necessary steps to avail ease loan procedure.
- ✓ Entrepreneur development program should arrange for entrepreneurs to make use of updated technologies and quality enhancement in production.
- ✓ Coir board and relevant bodies have to conduct research on production of value added products.

Conclusion:

Hencethisstudy concludesthat most of the coir entrepreneurs are satisfied of income earned in the industry. Though it seems good, it is the joint hand responsibility of both government and relevant bodies to take the industry to the next level. The research reveals that in international market, our Indian coir product exporters have numerous opportunities to grasp the market share. This is the duty of industrialist to produce and market quality products to market at global market at par with international competitors for sustainability.

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