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A Study on the Performance of the Coir Industry in Pudukkottai District

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ABSTRACT

The coir industry was chosen for study because of its social and economic importance to the area. The industry employs vast numbers of the disempowered social sections, mostly of the "lower castes" and "outcastes", an overwhelming majority of them women. The economic development of any country demands industrialization. Though this is realized in our country, it is high time we thought about balanced regional development, an important component of industrialization. Rural development forms a key component in a nation's progress towards economic freedom and equality. In the scenario, any study on a performing sector like Coir would be of immense help from a broader perspective. The coir making activity with a strong presence in the study area is making valuable contributions in the socio economic.

1. INTRODUCTION

The economic development of any country demands industrialization. Though this is realized in our country, it is high time we thought about balanced regional development, an important component of industrialization. Rural development forms a key component in a nation's progress towards economic freedom and equality. But the migration of rural people to cities and the ineffective utilization of rural resources stand as hurdles to rural development. Hence it is very important to develop and to encourage rural industries by considering their significance in socio-economic development. Rural or traditional industries, one of the sub-sectors of small-scale industries, have a direct and important influence on sustainable economic development. "Encouraging setting up of rural industries is an instrument for not merely attaining political freedom, but an instrument for economic freedom and a foundation of a new social order it is a matter of common knowledge that India is a land of villages and two-thirds of population lives in rural areas. The future of India lies in the teeming rural millions. It is only from a progressive, growing and dynamic rural society that India can put herself on the desired developmental path. Rural small-scale industries play an important role under Indian conditions.

COIR INDUSTRY

Coir Industry has to its credit a tradition and heritage of centuries. It is one of the few rural or traditional industries' and converts coconut husk, a waste, into wealth. This industry is the largest producer of coir, accounting for more than 80 per cent of the world's production of coir fibre. The development of this agro-based industry is a sine qua non for economic prosperity as it has backward and forward linkages. One of the special characteristics of the coir industry is that it provides full time employment to unskilled workers and part time employment opportunities to agricultural labourers. They cover six lakhs employees of whom majorities are from rural areas and the economically weaker sections of society.

THE HISTORY OF COIR

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In coir industry evolved and reached great heights is an interesting episode in itself. Coir epitomizes the concept of "wealth from waste". Coir has been known used in India for more than 1000 years. The Coir industry prospers well only in areas where coconut production is abundant because coconut husk is the raw material for the industry. The development of coir industry began taking root in India alongside the coconut groves. So the history of the Coir industry can be dated back to that of the fruits of the coconut palm. It is rightly remarked that one cannot narrate the story of coir except by starting with the coconut tree, where it really begins. Coconut is one of the oldest and enduring gifts of Mother Nature to mankind. There is no authentic account as to how coconut plays in India.

IMPORTANCE OF THE STUDY

Being strongly export-oriented from the very beginning, it has been fetching enormous foreign exchange by offering more than 14 value added products for export. The windfall opportunity offered by the global concern environment generated is such as industry as its products are totally bio-degradable and eco-friendly. In the scenario, any study on a performing sector like Coir would be of immense help from a broader perspective. The coir making activity with a strong presence in the study area is making valuable contributions in the socio economic. The present study proposes to study the present status of the industry from three major dimensions production, marketing and human resource management, besides giving a synoptic view of the financial position.

2. REVIEW OF LITERATURE

Dr. P. Krishnathulasimani Mrs. NirrmalaSathish(2015)[1] the focused that the coir industry in Tamil Nadu has created a major impact on the economy of the state. The use of coir as a renewable resource provides work to the rural poor and important export revenue. Coir, being a natural fibre that is environment friendly in the strictest sense of the term, is now seen as the fibre of the future. The eco friendly quality of coir will help it to hold its ground even as it battles competition from synthetic fibres. A further development of the industry can pave the way for substantial progress in the economic conditions of rural people, and was lead to their welfare and development.

Dr.P.Mohanasundaram[2]**(2015)**The coir industry was chosen for study because of its social and economic importance of the coir industries of employs vast numbers of disempowered social sections, mostly of the lower castes and outcastes, an overwhelming majority of whom are women. Coir and coir products make good progress in the domestic as well as international market because of their unique qualities of durability, bio-degradability and eco-friendliness. At present, the industry has a phenomenal share in the global market its value added coir products. The findings of the study were not exclusive in nature, but common to a majority of units in India. The study highlighted the problems confronting the industry that are not amenable to any quick-fix solutions.

[1]Dr. P. Krishnathulasimani Mrs. Nirrmalasathish(2015) A study on problems and prospects of export of coir industry –a case study; International Journal of Multidisciplinary Research Review,

[2]Dr.P.Mohannasundaram(2015) Marketing Problems Faced By Coir Units: A Study In Thanjavur District Of Tamil Nadu; International Journal of Advanced Research (2015), Volume 3, Issue 4, 103-107

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R.Senthilkumar,(2015)[3]Even though a number of problems are faced by the Coir industry in India, it has various opportunities for further growth and development. The Coir industry has very wider future prospects in terms of availability of coconut husks, providing employment, reducing unemployment, generating income, alleviating poverty, improving the standard of living of the people, creating great demand in both domestic as well as international markets, developing entrepreneurship and promoting country's economy. Therefore, it is concluded that the Government of India through the Coir Board can promote the coir industry in terms of reducing the various problems faced by the coir industry in India and opening the gateway for future prospects.

STATEMENT OF THE PROBLEM

India being a land of villages with more than two-thirds of her population living in rural areas, rural industrialization could play a key role in the country as it produces forward and backward linkages in the rural economy. In this context the Rural Small Scale Enterprises (RSSEs) based on local raw materials, skills and technology have been identified as one of the key sectors in the country. Among the rural small-scale industries, the coir industry is the oldest agro-based rural industry, and it has gained the attention of both enterprising entrepreneurs and the government. Is industry in Pudukkottai District, TamilNadu.

3. OBJECTIVES OF THE STUDY

1. To find the performance of the coir industry units in Pudukkottai District
2. To examine the production and marketing pattern and profit margin for the small and the medium coir units in Pudukkottai District

4. METHODOLOGY OF THE STUDY

The reasons for the choice of the study area, the collection of data, the sampling design and the tools of analysis are discussed.

CHOICE OF THE STUDY AREA

The study area of the present research work is Pudukkottai District, Tamil Nadu. Though it is predominantly an agricultural District, now, it stands at the ninth place in the state in terms of industrial production. The researcher being a native of this District, enjoy proximity to owner of coir units as with the study area and the owners of the coir units, the cordiality and rapport with the officials of the District Industries Centre, Pudukkottai, and the nearness of the Head Office of Coir Board, Kochi and other coir agencies, made his job of collection of the required data.

COLLECTION OF DATA

The researcher has relied on primary and secondary data for this study. This study is an empirical research based on the survey method. The researcher adopted interview schedules for collecting primary data.

PRIMARY DATA

The primary data were collected from three sources. The data on coir units their organization of pattern, human resource practices, and sales, cost and return on coir fibre manufactured were

[3]R.Senthilkumar,(2015) Problems And Prospects Of Coir Industry; Asia Pacific Journal of Research Vol: I. Issue XXXIV, December 2015

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from the owners of the units of the measurement of the satisfaction level of workers, the required data collected from workers. Information relating to price paid and received and a cost incurred in marketing of coir fibre was collected from market intermediaries. Separate interview schedules were prepared and used to elicit the required data from owners, workers, and market intermediaries. As an initial step, the drafted interview schedules were pre-tested by taking into account 5 owners of coir units, 25 coir workers and 10 intermediaries.

SAMPLING DESIGN

A list of coir units in Pudukkottai District was obtained from the District Industries Centre, Pudukkottai. It was ascertained that a total of 25 units were functioning as on 31st March 2015. These units constituted the population. All these 25 coir units were stratified into two groups-namely small and medium size units. The norms prescribed on capital investment by the District Industries Centre (DIC), the considered to categories these units. The units with investment upto Rs.15 lakhs were grouped as small units, and the units with investment between Rs.15 Lakhs and Rs.3 crores as medium units. 18 coir units were small size units and the remaining 7 were medium size units. The units like Native traders, commission agents, market traders and wholesalers, were randomly selected from Pudukkottai District.

SAMPLE FRAMEWORK OF WORKERS IN THE STUDY AREA

SL. NO	NAME OF THE TALUK	TOTAL WORKERS	WORKERS' SAMPLE SIZE (AT 5 PER CENT)
1.	Keerinur	268	70
2.	Peravurani	634	150
3.	Thiruvonam	698	70
4.	Karampakkudi	2345	50
5.	Kandharavakottai	3456	260
Total		7401	600

TABLE NO 1

PERIOD OF STUDY

The present study was cover a period of 10 years starting from 2005-2006 and ending with 2014-2015 for the collection of secondary data. The field survey was carried out from December 2015 to June 2015 to collect primary data. This period December to June is considered the main season for the coir industry of the study area. The reference period for the study is the financial year 2014-2015. The period taken for the present study is felt sufficient to fulfill the objectives of the study.

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FRAMEWORK OF ANALYSIS

The performance of the coir industry of the study area has been analyzed on the basis of secondary and primary data collected. In this study the following tools are used to analyses the data. Trend analysis, Compound Growth Rate, Cobb Douglas, Chow's, F-test, Regression Analysis using Dummy Variable, Marginal Value Productivity, Multiplicative Model, Chi-Square Test, Garretts, Ranking Technique.

LIMITATIONS OF THE STUDY

The study covers only the private coir units located in the study area. They are all engaged in extraction of fibre only. The only coir unit run by a co-operative society in the study area was not taken for the study. The primary data relating to workers were collected when they were in the work spot.

COST OF PRODUCTION PER 100 BUNDLES OF COIR FIBRE

SIZE OF THE UNIT	VARIABLE COST		FIXED COST		TOTAL COST	
	Amount	%	Amount	%	Amount	%
Small	29782.50	88.50	3872.96	11.51	33655.46	100.00
Medium	32916.89	86.07	5325.43	13.93	38242.32	100.00
Overall	35607.43	87.91	4898.17	12.09	40505.60	100.00

Source: Primary Data

TABLE NO 2

Table-1 presents the cost of production of coir fibre per 100 bundles for the small and medium size units of the study area by taking into account the major components of cost namely the variable and fixed costs. The total cost for the small and medium units were Rs.33655.46 and Rs.38242.32 respectively. The variable and fixed costs for small units were Rs.29782.50 and Rs.3872.96 which constituted 88.50 per cent and 11.51 per cent respectively of the total cost. In the case of the medium size units these costs were Rs.32916.89and Rs.3250.87 which constituted 82.11 per cent and 17.89 per cent respectively

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RETURNS FROM COIR FIBRE PRODUCTION

The gross return and net return per 100 bundles of coir fibre for the small and medium size units in the study area are worked out and presented in Table – 2

STATEMENT OF INCOME FROM COIR FIBRE PRODUCTION (PER 100 BUNDLES)

SL. NO	PARTICULARS	SMALL UNITS	MEDIUM UNITS
		AMOUNT	AMOUNT
1.	Gross Revenue	42284.65	44781.01
2.	Less: Marketing Cost	4308.45	4162.32

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3.	Gross Returns	37976.20	40618.69
4.	Less: Variable Cost	29782.50	32916.89
5.	Net Return	8193.7	7701.8
6.	Less: Fixed Cost	3872.96	5325.43
7.	Net Profit	4320.74	2376.37

Source: Primary Data

TABLE NO 3

It is understood from Table -2 that the gross revenue per 100 bundles of coir fibre was Rs.42284.65 and Rs.44781.01 in small and medium size units respectively. The net profit stood at Rs.4320.74 and Rs.2376.37 in the small and medium units respectively. The medium size units show a greater net profit of Rs.1944.37 (Rs.4320.74-Rs.2376.37) indicates that they were more profitable than the small units in the study area.The returns worked out after deducting the marketing costs were Rs.37976.20 and Rs.40618.69 for the small and medium size units respectively. After deducting the variable costs the net return came to Rs.8193.7 and Rs.7701.8 for the small and medium size units respectively.

ESTIMATED RESULTS OF COBB-DOUGLAS TYPE PRODUCTION FUNCTION FOR SMALL, MEDIUM AND POOLED CATEGORY OF UNITS MANUFACTURING COIR FIBRE

SL. NO.	VARIABLES	PARAMETER ESTIMATES		
		SMALL UNITS	MEDIUM UNITS	POOLED CATEGORY
1.	Intercept	-1.8479	1.1519	1.2107
2.	LnX_1	0.6109* (7.9977)	0.5462* (6.7298)	0.6583* (9.2470)
3.	LnX_2	0.2729* (4.7004)	0.2143*(3.3611)	0.1980* (3.5391)
4.	LnX_3	0.0387 (0.7140)	0.0135(0.1955)	0.0805 (1.4562)
5.	LnX_4	0.2510* (4.1651)	0.2105* (3.5495)	0.2206*(3.9648)
6.	LnX_5	0.2939* (2.5334)	0.1091* (2.2476)	0.1320*(10.9048)
7.	R^2	0.8223	0.8169	0.8000
8.	F–value	21.2925	15.1731	36.8019
9.	Residual sum of squares - $\sum e^2$	0.0052	0.0043	0.01922
10.	No. of observations	29	23	52

TABLE NO 4

1.*indicates that the co-efficient are statistically significant at the 5 per cent level.
2. Figures in bracket are t-values.

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It is understood from Table 3 that the explanatory variables taken for the analysis (model) for the small units, medium units and the pooled category have indicated greater variation in the gross revenue from coir fibre. In the case of the small units the co-efficient of multiple determination of (R^2) was 0.8233 indicating 82.33 per cent variation in gross revenue in relation to variables like labour, material, power and machine running which were significant at the five per cent level, and that means that for every one per cent increase in the investment on these resources, the gross revenue could be increased by 0.6109, 0.2729, 0.2510 and 0.2939 per cent respectively.

PRODUCTION PROBLEMS

The study also indicates that problems between small and medium size units. The production problems which are generally faced by owners are raising the required finance, procuring the raw material, finding the skilled labour, problems in power supply and problems of obsolescence and modernization.Taking into account the general as well as the location-oriented problems prevailing in the industry, the researcher prepared a list of problems that are faced by the units and discusses with the owners of units to seek their opinion. The problems identified and ranked by them were shortage of labour, inadequate supply of green husks, heavy machine maintenance expenses, and inadequate finance, and erratic power supply, traditional methods of production and problem of drying fibre during rainy seasons.In this section, the problems so identified and ranked by the owners of the coir units are converted into scores by using the Garrett Ranking Technique. The mean scores are worked out for each problem and arranged in a descending order. Accordingly the ranks given and are important problems are identified. The ranks for such problems were worked out separately for the small as well as the medium size units and presented in Tables -4.

PRODUCTION PROBLEMS FACED BY SMALL COIR UNITS

SL. NO	PROBLEM	MEAN SCORE	RANK
1.	Inadequate finance	60.86	I
2.	Shortage of workers	59.07	II
3.	Inadequate supply of green husks	58.52	III
4.	Heavy Machine maintenance expenses	44.91	IV
5.	Traditional method of fibre production	42.83	V
6.	Erratic power supply	41.31	VI
7.	Problems of drying fibre during rainy seasons	40.76	VII

Source: Primary data

TABLE NO 5

Table- 4 shows the production problems faced by the small coir units of the study area. Hence the owners of the units faced severe scarcity of funds to meet those expenses and considered inadequacy of finance as and foremost problem.The shortage of workers was very much felt by owners of the coir units during the peak agricultural seasons in the area. Most of the workers of the coir units are basically agricultural workers and they are mostly casual. Therefore coir units faced short supply of workers for nearly four months in a year when labour is absolute in agriculture. This affects the production of the coir units in those months. This problem with a mean score of 59.07 is ranked second.Though coconut husk is the basic raw material for the coir industry, green husk is mostly preferred by the coir units as the fibre from such husk

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fetches a higher price besides yielding more output. But green husk is always in heavy demand and the inadequate supply of green husk is another problem that affects production adversely. Hence, the problem with the mean score of 58.52 is ranked third.

MARKETING COST INCURRED BY MANUFACTURERS

The coir units in the study area sell their coir fibre through different channels. Usually, the manufacturers pay the cost of loading, transporting, octroi and unloading. The marketing cost incurred by the manufacturers per 100 k.g of fibre in all the three channels was worked out for both the small and medium units and the results are presented in Table -5

MARKETING COST INCURRED BY THE MANUFACTURERS (SMALL AND MEDIUM UNITS) (RUPEES PER 100 KG)

ITEMS OF COST	SMALL UNITS	MEDIUM UNITS		AVERAGE	
	CHANNEL II	CHANNEL II	CHANNEL III	CHANNEL II	CHANNEL III
Loading & Unloading	15.32 (9.24)	15.32(10.64)	15.32(8.53)	15.3(9.01)	15.32(7.71)
Packing Cost	5.60(3.38)	5.60(3.89)	5.60(3.11)	5.60(3.29)	5.60(2.82)
Weighing Charges	7.37(4.44)	7.37(5.12)	7.37(4.11)	7.37(4.33)	7.37(3.71)
Transport Cost	65.41(39.44)	58.03(40.33)	69.16(38.53)	61.70(36.27)	66.16(33.2
Commission	32.11(19.36)	28.19(19.59)	36.97(20.59)	33.02(20.03)	39.02(19.63)
Rejection Loss	27.75(16.73)	19.38(13.47)	30.82(17.17)	34.07(20.03)	39.02(19.63)
Incidental Charges	12.28(7.40)	10.00(6.95)	14.27(7.95)	13.03(7.66)	23.12(11.63)
Total	165.84(100.00)	143.89(100)	179.51(100)	170.11(100)	198.79(100)

Source: Primary data

TABLE NO 6

It is understood from Table-5 that the manufacturers prefer different channels for marketing of coir fibre. They have to incur marketing costs when they skip the native traders in the channels of distribution. The total marketing cost incurred by the manufacturers who run small units worked out to Rs.165.84per hundred kilogram of fibre in channel II. Rs.143.89 and Rs.179.51 were incurred in channels II and III way Channel by the manufacturers of the medium-size units as they prefer are both the channels with an overall average marketing cost of Rs.170.11 in channel II and Rs.198.79 in channel III.Among the total marketing costs incurred by the manufacturers (small units) in channel II, transport costs forward the major share of (39.44 per cent) followed by commission charges and rejection loss (19.36 per cent and 16.73 per cent respectively). The combined costs of loading and unloading and packing worked out to 12.51 per cent. The other two marketing costs like incidental charges and weighing charges together worked out to 5.62 per cent.

The total marketing costs incurred by the manufacturers (medium units) in channel II and III it is that the share of transport cost in channel II is 40.33 per cent but is it 38.53 per cent in channel III. The commission charges in channel II were 19.59 per cent but there was no such charge in channel III as the manufacturers skip the commission agents and sold through market

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traders directly in that channel. The loading and unloading charges worked out to 10.64 per cent and 8.53 per cent in channels II and III respectively and were more or less equal. The rejection loss had a share of 13.47 per cent in channel II rose to 17.17 per cent in channel III. It is on account of functions like cleaning, polishing and cutting of fibre undertaken by the market traders at the time of purchase. The incidental charge was 6.95 per cent in channel II but it was touched a percentage of 7.95. The remaining charges like packing cost were 3.89 per cent in channel II and 3.11 per cent in channel III and weighing charges were 5.12 per cent in channel II and 4.11 per cent in channel III. It is further shown in the table that among the total marketing costs of coir irrespective of the channels, transport cost had higher percentage with an overall average percentage of 33.28 followed by rejection loss with 19.63 per cent and loading and unloading with 8.53 per cent.The analysis showed that the marketing cost incurred by the manufacturers of coir fibre (medium units) in channel III is the lowest because of the non-payment of commission charges. It is the most economical channel with the least marketing costs among all the channels. It is followed by channel II also for the manufacturers of the medium-size units.

5. FINDING AND SUGGESTIONS

The researcher offers the following suggestions for the sustenance and improved performance of the coir industry. To improve the quality of the fibre and its length, a bio-technological study should be undertaken by the Research Institute of the Coir Board by taking the genetic study of coconut. Though it seems a time consuming and expensive study, it would be beneficial in the long term survival and growth of the industry.As the study area has abundant raw material husk supply with low price the large units make bulk purchases and stock them in their units, thereby effecting continuous production of fibre. The small units, due to inadequate storing facility, could not reap the benefits enjoyed by the large units. It is suggested that to lessen the burden of stocking the procured raw material, the small units may be allowed to use the market yards of the regulated markets spread over acres of land which are lying unutilized. This service may be provided charging a reasonable storage fee.The survival of the industry amidst other factors mainly depends on the steady availability of skilled artisans and workers. Moreover the workers of the study area lack industrial work culture and cause numerous labour problems to the units. The Coir Board should take earnest steps to open its office in the district head quarters, Pudukkottai, in order to make the entrepreneurs fully informed of coir schemes and programmes from time to time.The investment subsidy extended by the Coir Board as well as the state government through the District Industries Centre should be linked with the output of the coir units. It is suggested that a separate cell named “Coir Development Cell” may also be opened on the premises of the District Industries Centre to attend exclusively to coir related issues.Self help groups who have a strong presence in the study area may be motivated and organized to undertake the manufacturing of traditional coir products like mats, mattresses, coir ropes, carpets and innovative coir products like coir composites, coco-lawn, coir bricks and coir geo-textiles.

6. CONCLUSION

The coir industry was chosen for study because of its social and economic importance to the area. The industry employs vast numbers of the disempowered social sections, mostly of the “lower castes” and “outcastes”, an overwhelming majority of them women. It employs more than six lakhs people directly and indirectly and earns foreign exchange to the tune of Rs.300 crores per annum. Coir and coir products make good progress in the domestic as well as international market because of their unique qualities of durability, bio-degradability and eco-

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friendliness. At present, the industry gets a phenomenal share of 89 per cent of the global market for the value added coir products.After the heady day's right from the time the first factory was established in the second half of the nineteenth century to the middle of the twentieth century, the industry has gone through some upheavals. Now the Indian industry is on the comeback trail and keeping pace with the changing technology and imbibing the latest developments in production techniques and designs.

7. REFERENCES

[1] K.Manoharan and R. Ramesh chandran, ―Cluster Approach – A New Paradigm for the Sustainable Development of SSIs in Kerala ―, Journal of Business Studies, Vol.1, No.2, July, 2004, pp.47-50.
[2] P.Chillar Mohamed, ―Sickness in Coir Industries in Tamil Nadu: A Scenario‖, Southern Economist, Vol.43, No.5, July 1, 2004, pp.8-10.
[3] V.Richard Paul, ―A Study on Production and Marketing of Coconut in Theni District", Unpublished Ph.D Thesis submitted to Madurai Kamaraj University, Madurai, 2004, p.167.
[4] K.R. Gouri Amma, ―Modernisation of Coir Industry‖, Journal of Kerala Calling, Vol.XV, No.3, April 2005
[5] S.J. Pandi ―Problems and Challenges of Industrial Co-operatives with Special Reference to Coir Cooperative Units in Tamil Nadu‖, Indian Co-operative Review, Vol.42, No.3, January 2005, pp.197-202
[6] M. Kumarasamy Pillai, ―Towards Self-Reliance in Coir Fibre Production‖, Coir News, Vol.XXXIV, No.6, June 2005, pp.37-39.
[7] C. Chandaran, ―The Indian Coir Industry‖, Agriculture and Industry Survey, Vol.15, No.2, Feb, 2005,pp.16-19.
[8] M. Srimannarayana, ―Human Resource Management in Small Business‖, Indian Journal of Industrial Relations,Vol.41, No.3, January 2006, pp.313-327.
[9] Gupta, S.P., Statistical Methods, Sultan Chand & Sons, New Delhi, 2007

