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

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ABSTRACT

The economic development of any country depends upon industrialization. Though it has got recognition 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 in effective utilization of rural resources stand as hurdles to rural development. Hence it is very important to develop and to encourage rural industry by considering its significance on the socio-economic front of the country. Rural or traditional industry, one of the sub-sectors in small-scale industry, has a direct and important influence on sustainable economic development.

1. INTRODUCTION

How 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 and is in use in India for more than 1000 years. 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 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 arrived in India.

ECONOMIC IMPORTANCE OF COIR INDUSTRY

During the initial period, Coir Industry by and large remained the monopoly of the State of Kerala. From the enactment of the Coir Industry Act in 1953, the control of the Coir Industry has been taken over by the Government of India. The Coir Board turned its attention to other coconut growing states of India also, starting with Tamil Nadu, and later in Karnataka, Andhra Pradesh, Maharashtra, West Bengal and others. This agro-based traditional industry assumes greater significance in the national economy in view of the fact that it is providing micro-level employment to millions of people who are socially and economically weaker sections of society.

IMPORTANCE OF THE STUDY

The agro-based traditional rural industry coir is spreading itself at a fast tempo in the southern parts of the country. 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

ISSN:0971-1260
Vol-22-Issue-4-October-December-2019

windfall opportunity offered by the global concern for the environment generated a heat in the industry as its products are totally bio-degradable and eco-friendly. In the changed scenario, any study on this performing sector would be of immense help from a broader perspective. The coir making activity with a strong presence in the study area is making valuable contribution in the socio-economic front of the region. 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.

STATEMENT OF THE PROBLEM

The industry in Thanjavur District, Tamil Nadu, also witnesses the major problems seen at the macro-level but at varying degrees. Despite favorable conditions like abundant supply of husk and labour, nearly 25 units which were started in the 1990s became sick and non-operational. It was ascertained from the preliminary study that out of the 82 units which are operating now in the study area, generally complained of the lack of financial support from government agencies, change in attitude of workers making the adversely less preferred works still less preferable, absence of ready market nearby and absence of government agencies like the State Co-operative Coir Marketing Federation and the Tamil Nadu State Coir Corporation limited. Moreover it was appalling to note that none of the owners of existing units is prepared to go for the second stage of coir production including the manufacture of value-added products which have a strong export orientation. The enquiries also showed that the owners of the small units were very much reluctant to undertake the expansion programmes for their units. In the light of the problems and prospects associated with the industry, it enjoys certain inherent strengths such as low overhead cost, flexibility in production, informality in labour relations, exploitations of local resources and skills, besides a raising demand for coir fiber in the terminal market, Therefore, the researcher intended to make a critical appraisal of the industry in terms of its select functional perspectives, so as to bring out the current status and to improve its operational efficiency by offering suggestions based on the study area, Thanjavur district.

2. OBJECTIVES OF THE STUDY

The objectives framed for the present study are:

1. To identify the existing marketing channels and to evaluate the marketing cost, marketing margin, price-spread and marketing efficiency of different channels in Pudukkottai District
2. To study on major problems in production, marketing and managing human resources of the units in Pudukkottai District

3. METHODOLOGY OF THE STUDY

This study was suitable methodology were adopted in the selection of analytical tools are important for a meaningful analysis of research problem. In this section, 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 Thanjavur District, Tamil Nadu. Though it is predominantly on agricultural district, now, it stands at the ninth place in the state in terms of industrial production.The vast stretches of land cultivated by coconut, and strong presence of

ISSN:0971-1260
Vol-22-Issue-4-October-December-2019

agricultural labourers and artisans, the emergence of an ambitious new generation of entrepreneurs and the gradual shift of the people from agriculture to business and industry, have changed the direction and complexion of the district into an industry-friendly region. It is one of the pioneer districts of coir production, seeing a steady increase in coir units over the years due to ready market for the produced coir fibre in the nearby state of Kerala. It indicates a vast potential for the growth of this industry in the region.

4. 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, about their organization, investment sources and pattern, human resource practices, and sales, cost and return on coir fiber manufactured from the owners of the units and for the measurement of 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 also collected from market intermediaries. Separate interview schedules were prepared and used to elicit this 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. Their opinions and suggestions were sought on its construction. In the light of the experience gained in the pre-test, the originally prepared interview schedules were modified and the final draft prepared.

SAMPLING DESIGN

A list of coir units in Thanjavur District was obtained from the District Industries Centre, Thanjavur. It was ascertained that a total of 25 units were functioning as on 31st March 2015 in the study area. These units precisely constituted the population. All these 25 coir units taken for study were stratified into two groups-namely small and medium size units. In each category namely native traders, commission agents, market traders and wholesalers, were randomly selected from Thanjavur district.

PERIOD OF STUDY

The present study was cover a period of 10 years starting from 2006-2007 and ending with 2017-2018 for the collection of secondary data. The field survey was carried out from December 2017 to June 2018 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 2017-

ISSN:0971-1260
Vol-22-Issue-4-October-December-2019

2018. This is considered for the analysis of primary data only. The period taken for the present study is felt sufficient to fulfill the objectives of the study.

5. 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. Their target of production was the 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 working spot.

INVESTMENT PATTERN OF FIXED CAPITAL (SMALL UNITS)

(Rs in Lakhs)

SL. NO.	PARTICULARS	RANGE OF INVESTMENTS					
		UPTO RS.15 LAKHS (7 UNITS)		BETWEENRS.15 LAKHS-RS.20 LAKHS (13 UNITS)		BETWEEN RS.20 LAKHS-RS.25 LAKHS (9 UNITS)	
		TOTAL INVESTMENT	AVERAGE INVESTMENT PER UNIT	TOTAL INVESTMENT	AVERAGE INVESTMENT PER UNIT	TOTAL INVESTMENT	AVERAGE INVESTMENT PER UNIT
1.	Land	14.35	2.0(20.10)	29.38	2.26 (16.24)	26.19	2.91(16.02)
2.	Buildings	10.43	1.49(14.61)	25.48	1.96(14.08)	22.23	2.47 (13.60)
3.	Machinery	37.31	5.33(52.26)	107.51	8.27 (59.41)	99.90	11.10 (61.12)
4.	Vehicles	8.75	1.2(12.5)	16.90	1.30 (9.34)	13.50	1.5 (8.26)
5.	Tools & Appliances	0.56	0.08(0.78)	1.69	0.13 (0.93)	1.62	0.18 (1.00)
	Total	71.40	10.20(100.00)	180.96	13.92(100.00)	163.44	18.16(100.00)

TABLE No 1

It is clear from Table - 1 that in respect of the small units the average investment of capital on fixed assets per unit varies on the basis of their total investment ranges which are of three types, viz, 1) upto Rs.15 lakhs, 2) Rs.15 lakhs to Rs.20 lakhs and 3) Rs.20 lakhs to Rs.25 lakhs. The average investment per unit on Machinery and Equipment, Land and Buildings (combined) and Vehicles and Tools and Appliances (combined) stand at 52.26, 34.71 and 13.28 per cent respectively for units in the first range. For the units in the second range, their percentages are 59.41, 30.32 and 10.27 and for the units in the third range their percentages are 61.12, 29.62 and 9.26 on the order of the aforesaid fixed assets

INVESTMENT PATTERN OF FIXED CAPITAL (MEDIUM UNITS)

ISSN:0971-1260
Vol-22-Issue-4-October-December-2019

SL. NO.	PARTICULARS	RANGE OF INVESTMENT					
		BETWEEN RS.25 LAKHS –RS.30 LAKHS (4 UNITS)		BETWEEN RS.30 LAKHS–RS.35 LAKHS (11UNITS)		ABOVE RS.35 LAKHS (8 UNITS)	
		TOTAL INVESTMENT	AVERAGE INVESTMENT	TOTAL INVESTMENT	AVERAGE INVESTMENT	TOTAL INVESTMENT	AVERAGE INVESTMENT
1.	Land	13.20	3.30(15.64)	42.90	3.9015.30)	33.60	4.20 (13.19)
2.	Building	11.40	2.85(13.51)	37.18	3.38(13.27)	30.00	3.75 (11.77)
3.	Machine &Equipments	52.00	13.00(61.61	174.90	15.90(62.40)	172.00	21.50 (67.50)
4.	Vehicles	7.00	1.75(8.29)	22.00	2.0 (7.85)	16.00	2.00 (6.28)
5.	Tools & Appliances	0.80	0.20(0.95)	3.30	0.30 (1.18)	3.20	0.40 (1.26)
	Total	84.40	21.10(100)	280.28	25.48 (100.00)	254.80	31.85 (100.00)

TABLE No 2

It is clear from Table 2 that in respect of the medium-size units, the average investment on fixed assets per unit varies on the basis of their total investment ranges which are of three types, namely- 1) Rs.25 to Rs.30 lakhs, 2) Rs.30 lakhs to Rs.35 lakhs and 3) Above Rs.35 lakhs. The average investment per unit on Machinery and Equipment, Land and Building (combined) Vehicles and Tools and Appliances (combined) stand at 61.61 per cent, 29.15 per cent and 9.24 per cent respectively for units in the first range.

OVERALL PATTERN OF INVESTMENT IN FIXED ASSETS

The overall pattern of the investment in fixed assets of both the small and medium size units is presented in Table 3

OVERALL PATTERN OF INVESTMENTS IN FIXED ASSETS

SL. NO	PARTICULARS	SMALL (29 UNITS)	MEDIUM (23 UNITS)	TOTAL (52 UNITS)
1.	Land	69.92 (16.82)	89.70 (14.48)	159.62 (15.42)
2.	Buildings	58.14 (30.80)	78.58 (12.68)	136.72 (13.20)
3.	Machines &Equipments	244.72 (58.85)	398.90 (64.39)	643.62 (62.17)
4.	Vehicles	39.15 (9.42)	45.00 (7.27)	84.15 (8.13)
5.	Tools & Appliances	3.87 (1.35)	7.30 (8.45)	11.17 (1.08)
Total		415.80 (100.00)	619.48 (100.00)	1035.28 (100.00)

TABLE No 3

ISSN:0971-1260
Vol-22-Issue-4-October-December-2019

The overall pattern of investment on fixed assets by coir units shown in Table 4 indicated that on an average 62.17 per cent of the investment on fixed assets goes to Machinery and Equipment, 28.62 per cent to Land and Building (combined) and 19.21 to Vehicles and Tools and Appliances. It is further understood that nearly 59 per cent of the investment is made on machinery and equipments 30 per cent on land and building (combined) and 10 per cent on Vehicles and Tools and Appliances (combined) by the small size units but it is around 65 per cent, 27 per cent and 8 per cent respectively for the medium size units. However the overall pattern of investment indicated that the investment on machinery and equipment tends to increase when the size of the unit expands.

COST OF PRODUCTION PER 100 BUNDLES OF COIR FIBRE

SIZE OF THE UNIT	VARIABLE COST		FIXED COST		TOTAL COST	
	AMOUNT IN RS	PERCENTAGE	AMOUNT IN RS	PERCENTAGE	AMOUNT IN RS	PERCENTAGE
Small	16,808.49	90.40	1786.36	9.60	18,594.85	100.00
Medium	14,917.92	82.11	3250.87	17.89	18,168.79	100.00
Overall	15,983.44	86.58	2477.01	13.42	18,460.45	100.00

Source: Primary data

TABLE No 4

PRESENTED 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.18594.85 AND RS.18168.87 RESPECTIVELY Table -5

TESTS OF THE STABILITY OF INTERCEPT AND SLOPE LEVEL FORSMALL AND MEDIUM COIR UNITS

SL. NO	VARIABLES	PARAMETER ESTIMATES	T - VALUE
1.	Intercept	0.1928	
2.	Intercept dummy	0.9189	0.4395
3.	ln X_1	0.6916*	8.0198
4.	ln X_2	0.2401*	3.5530
5.	ln X_3	0.0840	1.3509
6.	ln X_4	0.2624*	3.7022
7.	ln X_5	0.1294*	5.5480
8.	Dln X_1	-0.1446	-1.1522
9.	Dln X_2	-0.0242	-0.2441
10.	Dln X_3	-0.0682	-0.6727

ISSN:0971-1260
Vol-22-Issue-4-October-December-2019

11.	Dln X_4	-0.0516	-0.5314
12.	Dln X_5	0.2393*	4.0130
13.	Adjusted R^2	0.8331	
14.	F – Value	24.1462	
15.	Residual Sum of Squares	0.0126	
16.	No. of observations	52	

Source: Primary data

TABLE No 5

* Indicates that the co-efficient are statistically significant at the 5 per cent level Table 5 shows that the co-efficient of the dummy variable at the intercept level is statistically not significant. This indicates that there is no difference between the small and medium-size coir units with regard to technical change in the study area. For small units (except machine running) all the explanatory variables have a positive impact on the gross revenue of coir fibre. The variables human labour, material (husk) power and machine running are statistically significant at the five per cent level. It means that if these variables are increased by one per cent, the gross revenue could be increased by 0.6916, 0.2624 (and 0.1294) per cent respectively. Human labour was the most influential variable in relation to gross revenue, followed by power. The result for the medium units showed that all the slope dummies except machine running are statistically not significant. This indicates that the two regressions have the same partial slope except machine running. Thus, it may be concluded from the analysis that there is no structural difference at the intercept level and it is found only at the slope level. At the slope level, the structural difference exists only on the variable of machine running. It means that it has generally a favorable impact on the gross revenue of the units of the study area

6. FINDINGS

The following are the major findings of the study:

1. It is ascertained that the first coir factory was established in 1859 in India .The total number of coir units in the country increased from 7 in 1908 to 474 in 1948. Considerable growth was noticed during the pre-independence period as a result of tens of thousands of households in hundreds of villages in the coastal areas of Kerala taking to coir spinning work. It is also observed that the growth of coir factories registered a significant increase during the post-independence period.
2. It is found that there was good progress in the number of coir unit's set-up in India during the period under study. The number of units found in 2005-06 was 6456 and increased to 9597 in 2014-15, by registering an annual growth of 48.65 per cent.

ISSN:0971-1260
Vol-22-Issue-4-October-December-2019

3. It is observed from the region wise distribution of the coir units that that set-up in the southern-region registered a whopping share of 93.89 per cent and the highest diminution was found in the central region during the study period.
4. It is known that among the state-wise distribution of coir units in Southern India, the state of Kerala has the major share of 81.47 per cent, followed by the other states which accounted for 18.53 per cent. But the State of Tamil Nadu showed a remarkable increase with 73.08 per cent in the establishment of new units during the period under review.
5. It is found that the growth of the coir units in Tamil Nadu showed a steady increase year after year and has been making rapid strides during the period under review. As on March 31, 2015, there were 1260 coir units functioning in Tamil Nadu.

7. SUGGESTIONS

The researcher offers the following suggestions for the sustenance and improved performance of the coir industry.

1. Since the coir fibre is the chief raw material for the production of coir and coir products, the state government as well as the Coir Board may encourage the entrepreneurs to go for another stage of coir production involving the manufacture of value-added coir products.
2. The high cost of production of fibre may be greatly reduced if technological up gradation is favored in the areas such as dehiscing and quality of fibre. Low cost machines of reasonable productivity have to be introduced to replace the process of dehiscing done manually now. 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. Therefore, cost reduction through modernization and professionalism are the need of the hour.
3. In order to make them fully informed on the current trends in the industry and to provide them a platform to discuss the day-to-day problems confronting their coir units, the entrepreneurs of the study area may be encouraged to form a manufacturer's guild. The DIC and non-governmental organizations have a role to play in this regard.
4. The months of January-April being the peak season for coir fibre, that the commercial banks and financial institutions should conduct "Coir Loan Melas" to meet their working capital requirements during the period.

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ISSN:0971-1260
Vol-22-Issue-4-October-December-2019

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