



A STUDY ON DETERMINANTS OF PROBLEMS OF COIR INDUSTRY IN TAMIL NADU WITH SPECIAL REFERENCE TO THE VARIABLE - TYPE OF ESTABLISHMENT

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Abstract

India being a land of villages with more than two-thirds of population living in rural areas, so rural industrialization plays a key role in the Indian economic development. Among the rural small-scale industries, coir industry is the traditional agro-based rural industry, which has got the attention of both the entrepreneurs and the government today. Coir and coir products is base for living of the people in both rural and urban areas. However, there are number of problems arise practically at every stage from collection of raw materials to marketing of coir products. There are number of factors determining problems in coir industry. Chi-square analysis was used to find out the determinants of coir industry problems. The variable - type of establishment is compared with the other variables such as supply of power, supply of labour, labour co-ordination, labour performance, availability of raw material, less production innovation, government concession for coir production, problem on exporting goods, raw material cost, transportation cost, labour cost, cost of power and overhead cost and the results and suitable suggestions are presented in this article.

Key Words: Type of Establishment, Coir Products, Marketing, Product Innovation, Overhead Cost, Labour Cost, Etc.

Introduction

The economic development of any country depends on industrialization and the important component of industrialization is balanced regional development. For nation's progress towards economic freedom and equality, rural development forms a key component. But the migration of rural people, the ineffective and under utilization of rural resources are hurdles to rural development. Hence it is very important to develop and to encourage rural industry. Rural or traditional industry, one of the sub-sectors of small-scale industry, has a direct and important influence on sustainable economic development. It mainly supports the economically weaker section of the rural population because two-third of Indian population lives in rural areas. Hence rural small-scale industries play an important role under the peculiar Indian conditions. They contribute about half the gross value of output originating in the manufacturing sector. At present it contributes 40 per cent to exports in the country and provides employment to 13 million. So encouraging setting up of rural industries in the small area is important for economic development.

The coir industry in India is an important traditional cottage industry contributing significantly for economic development, especially in the rural sector providing with employment. The coir industry is high labour intensive industry employs more than 6.4 lakh persons of whom a majority is from the rural areas belonging to the economically weaker sections of the society. Nearly 80% of the coir workers in the fiber extraction and spinning sectors are women. India is the largest coir producer in the world accounting for more than 80 per cent of the total world production of coir fiber. India is the premier coir producing country in the world earning foreign exchange to the tune of over Rs.807 crore annually by way of export of coir and coir products.

Statement of the Problem

India being a land of villages with more than two-thirds of population living in rural areas, so rural industrialization plays a key role in the Indian economic development. Among the rural small-scale industries, coir industry is the traditional agro-based rural industry, which has got the attention of both the entrepreneurs and the government today. Coir and coir products is base for living of the people in both rural and urban areas. However, there are number of problems arise practically at every stage from collection of raw materials to marketing of coir products like coir fibre, coir yarn, coir rope and coir matting's. The studies earlier by experts and researchers like Thomas Issac (1992), Rajendran (1998), Leela Menon (2007), Ajith Kumar P (1995), Christy (2000), Rajendran S. (2011), Menon N. Madhava (2013), Samsai T et al (2014) etc., concentrated mainly on modernization and employment in coir industry, marketing possibilities of coir and coir products, export of coir, coir industry in India, coir co-operatives, technological changes in coir industry, production performance of coir, etc. There has been no serious attempt in the literature reviewed to analyze the determinants of problems of coir industry. Therefore, the present study analysed the determinants of problems of coir industry in Tamil Nadu with special reference the variable – the type of establishment.



Objectives

The objectives of the study are as follows,

1. To analyse the determinants of coir industry problems in Coimbatore District.
2. To suggest suitable policies for further improvement of coir industry.

Research Methodology

The research design adopted for the study is both descriptive and analytical in nature. The study was conducted from April 2011 to March 2013. The study is mainly based on the primary data and was collected from the sample of coir units in Coimbatore District. Secondary information was also collected from Annual Reports of Coir Board, Kochi, Kerala, Central Coir Research Institute, Alappuzha, Kerala, various books, journals and websites relevant to the coir industry. Primary data was collected through a structured questionnaire. Two hundred and forty units were selected through random sampling method. Determinants of problems of coir industry has been analysed by using statistical tools like Percentage and Chi-square Test. The study is restricted to the Coimbatore District as it is evident that the more number of coir units are functioning in this area which has suffered from various problems related to production, labour, marketing, etc.,

Determinants of Coir Industry Problems

The Variable – Type of Establishment

One of the objectives of the study is to analyse the problems faced by the respondent coir units in Coimbatore District. There are number of factors determining problems in coir industry. Chi-square analysis was used to find out the determinants of coir industry problems and the results are presented in the following tables. The variable - type of establishment is compared with the other variables such as supply of power, supply of labour, labour co-ordination, labour performance, availability of raw material, less production innovation, government concession for coir production, problem on exporting goods, raw material cost, transportation cost, labour cost, cost of power and overhead cost.

Table 1: Type of Establishment and Supply of Power, Supply of Labour, Availability of Raw Material

Type of Establishment	Supply of Power			Supply of Labour			Availability of Raw Material		
	Sufficient	Insufficient	Total	Sufficient	Scarcity	Total	Yes	No	Total
Proprietorship	138	44	182	132	50	182	80	102	182
	(75.80)	(24.20)	(100.00)	(72.50)	(27.50)	(100.00)	(44.00)	(56.00)	(100.00)
Partnership	18	22	40	22	18	40	22	18	40
	(45.00)	(55.00)	(100.00)	(55.00)	(45.00)	(100.00)	(55.00)	(45.00)	(100.00)
Co-operative	8	6	14	10	4	14	4	10	14
	(57.10)	(42.90)	(100.00)	(71.40)	(28.60)	(100.00)	(28.60)	(71.40)	(100.00)
Private limited	0	4	4	2	2	4	2	2	4
	(00.00)	(100.00)	(100.00)	(50.00)	(50.00)	(100.00)	(50.00)	(50.00)	(100.00)
Total	164	76	240	166	74	240	108	132	240

Source: Primary Data

H₀: Type of Establishment is not associated with Supply of Power

The percentage of manufacturers whose opinion on supply of power is sufficient, is found high among sole proprietors. The percentage of manufacturers, who are of opinion that supply of power is insufficient, is found high among private limited units. As the calculated Chi-square value is greater than the table value at one per cent level, there exists significant association between type of establishment and supply of power. Hence, the null hypothesis is rejected.

H₀: Type of Establishment is not Associated with Supply of Labour

The percentage of manufacturers whose opinion on supply of labour is sufficient is found high among sole proprietors and the percentage of manufacturers whose opinion on supply of labour is highly scarce is found among private limited units. As the calculated Chi-square value is less than the table value at five per cent level, there exists no significant association between type of establishment and supply of labour. Hence, the null hypothesis is accepted.

H₀: Type of Establishment is not associated with Availability of Raw Material

The percentage of manufacturers who are of opinion that the availability of raw material is found to be high among partnership form of business and the non-availability of raw material is found to be high among co-operative units. As the



calculated Chi-square value is less than the table value at five per cent level, there exists no significant association between type of establishment and availability of raw material. Hence, the null hypothesis is accepted.

Table 2: Type of Establishment and Labour Co-Ordination and Labour Performance

Type of Establishment	Labour Co-ordination				Labour Performance			
	Very Good	Good	Satisfactory	Total	Very Good	Good	Poor	Total
Proprietorship	18	144	20	182	18	154	10	182
	(9.90)	(79.10)	(11.00)	(100.00)	(9.90)	(84.60)	(5.50)	(100.00)
Partnership	4	22	14	40	6	24	10	40
	(10.00)	(55.00)	(35.00)	(100.00)	(15.00)	(60.00)	(25.00)	(100.00)
Co-operative	4	10	0	14	0	14	0	14
	(28.60)	(71.40)	(00.00)	(100.00)	(00.00)	(100.00)	(00.00)	(100.00)
Private limited	2	2	0	4	2	2	0	4
	(50.00)	(50.00)	(00.00)	(100.00)	(50.00)	(50.00)	(00.00)	(100.00)
Total	28	178	34	240	26	194	20	240

Source: Primary Data

H₀: Type of Establishment is not associated with Labour Co-Ordination

The percentage of manufacturers whose opinion on labour co-ordination is found very good among private limited units. The percentage of manufacturers whose opinion on labour co-ordination is found satisfactory is high among partnership firms. As the calculated Chi-square value is greater than the table value at one per cent level, there exists significant association between type of establishment and labour co-ordination. Hence, the null hypothesis is rejected.

H₀: Type of Establishment is not associated with Labour Performance

The respondent units whose opinion on performance of labour is found to be very good among private limited units. The respondent units whose opinion on performance of labour is found to be good among co-operative form of organization and the respondent units whose opinion on performance of labour is found poor among partnership units. As the calculated Chi-square value is greater than the table value at one per cent level, there exists significant association between type of establishment and labour performance. Hence, the null hypothesis is rejected.

Table 3: Type of Establishment and Less Production Innovation, Government do not Offer Concession, Problem on Exporting Goods

Type of Establishment	Less Production Innovation			Government do not Offer Enough Concession			Problem on Exporting Goods		
	Agree	Disagree	Total	Agree	Disagree	Total	Yes	No	Total
Proprietorship	176	6	182	60	122	182	120	62	182
	(96.70)	(3.30)	(100.00)	(33.00)	(67.00)	(100.00)	(65.90)	(34.10)	(100.00)
Partnership	38	2	40	26	14	40	30	10	40
	(95.00)	(5.00)	(100.00)	(65.00)	(35.00)	(100.00)	(75.00)	(25.00)	(100.00)
Co-operative	14	0	14	6	8	14	8	6	14
	(100.00)	(00.00)	(100.00)	(42.90)	(57.10)	(100.00)	(57.10)	(42.90)	(100.00)
Private limited	4	0	4	0	4	4	4	0	4
	(100.00)	(00.00)	(100.00)	(00.00)	(100.00)	(100.00)	(100.00)	(00.00)	(100.00)
Total	232	8	240	92	148	240	162	78	240

Source: Primary Data

H₀: Type of Establishment is not associated with Less Production Innovation

The percentage of manufacturers who are of opinion on less production innovation, is maximum agreed by co-operative type of units and private limited units and the percentage of manufacturers whose opinion on less production is maximum disagreed by partnership units. As the calculated Chi-square value is less than the table value at five per cent level, there exists no significant association between type of establishment and less production innovation. Hence, the null hypothesis is accepted.

H₀: Type of Establishment is not associated with Government do not offer enough Concession for Coir Production

The percentage of manufacturers who are of opinion that the Government is offering enough concession for coir sector,



found to be high among private limited units. The percentage of manufacturers who are of opinion that the Government is not offering enough concession for coir sector, found to be high among partnership units. As the calculated Chi-square value is greater than the table value at one per cent level, there exists significant association between type of establishment and the enough concession which is not offer by the Government. Hence, the null hypothesis is rejected.

H₀: Type of Establishment is not associated with Problem on Exporting Goods

The percentage of manufacturers whose opinion on problems on exporting goods is found high among private limited units. The percentage of manufacturers, who are of opinion that they have no problems while exporting the goods, is found high among co-operative units. As the calculated Chi-square value is less than the table value at five per cent level, there exists no significant association between type of establishment and problems on exporting goods. Hence, the null hypothesis is accepted.

Table 4: Type of Establishment and Raw Material Cost, Transportation Cost and Labour Cost

Type of Establishment	Raw Material Cost			Transportation Cost				Labour Cost			
	High	Very High	Total	Low	High	Very High	Total	Low	High	Very High	Total
Proprietorship	80	102	182	19	114	49	182	2	82	98	182
	(44.00)	(56.00)	(100.00)	(10.40)	(62.60)	(26.90)	(100.00)	(1.10)	(45.10)	(53.80)	(100.00)
Partnership	19	21	40	3	28	9	40	0	17	23	40
	(47.50)	(52.50)	(100.00)	(7.50)	(70.00)	(22.50)	(100.00)	(00.00)	(42.50)	(57.50)	(100.00)
Co-operative	6	8	14	3	8	3	14	0	6	8	14
	(42.90)	(57.10)	(100.00)	(21.40)	(57.10)	(21.40)	(100.00)	(00.00)	(42.90)	(57.10)	(100.00)
Private limited	3	1	4	1	3	0	4	0	2	2	4
	(75.00)	(25.00)	(100.00)	(25.00)	(75.00)	(00.00)	(100.00)	(00.00)	(50.00)	(50.00)	(100.00)
Total	108	132	240	26	153	61	240	2	107	131	240

Source: Primary Data

H₀: Type of Establishment is not associated with Raw Material Cost

The percentage of manufacturers whose opinion on raw material cost is high is found high among the private limited units. The percentage of manufacturers, who are of opinion that raw material cost is very high, is found high among co-operative units. As the calculated Chi-square value is less than the table value at five per cent level, there exists no significant association between type of establishment and raw material cost. Hence, the null hypothesis is accepted.

H₀: Type of Establishment is not associated with Transportation Cost

It is inferred from the table that the percentage of manufactures whose opinion on transportation cost is very high, is found high among proprietorship type of units and the percentage of manufacturers who are of opinion on transportation cost is low, is found high among manufacturers, who belong to private limited unit. As the calculated Chi-square value is less than the table value at five per cent level, there exists no significant association between type of establishment and transportation cost. Hence, the null hypothesis is accepted.

H₀: Type of Establishment is not associated with Labour Cost

The percentage of respondent units whose opinion on labour cost is very high, is found high among partnership and co-operative units and opinion on labour cost is low, is found high among proprietorship type of units. As the calculated Chi-square value is less than the table value at five per cent level, there exists no significant association between type of establishment and labour cost. Hence, the null hypothesis is accepted.

Table 5: Type of Establishment and Cost of Power and Overhead Cost

Type of Establishment	Cost of Power				Overhead Cost			
	Low	High	Very High	Total	Low	High	Very High	Total
Proprietorship	29	146	7	182	19	127	36	182
	(15.90)	(80.20)	(3.80)	(100.00)	(10.40)	(69.80)	(19.80)	(100.00)
Partnership	7	33	0	40	6	25	9	40
	(17.50)	(82.50)	(00.00)	(100.00)	(15.00)	(62.50)	(22.50)	(100.00)



Co-operative	1	13	0	14	3	10	1	14
	(7.10)	(92.90)	(00.00)	(100.00)	(21.40)	(71.40)	(7.10)	(100.00)
Private limited	0	3	1	4	0	0	4	4
	(00.00)	(75.00)	(25.00)	(100.00)	(00.00)	(00.00)	(100.00)	(100.00)
Total	37	195	8	240	28	162	50	240

Source: Primary Data

H₀: Type of Establishment is not associated with Cost of Power

It is evident from the table that the percentage of manufacturers whose opinion on cost of power is very high, is found high among private limited units and cost of power is found low among partnership firms. As the calculated Chi-square value is less than the table value at five per cent level, there does not exist any significant association between type of establishment and cost of power. Hence, the null hypothesis is accepted.

H₀: Type of Establishment is not associated with Overhead Cost

The percentage of manufacturers whose opinion on overhead cost is very high is found high among private limited units and the percentage of respondent units whose opinion on overhead cost is low, is found high among co-operative units. As the calculated Chi-square value is greater than the table value at one per cent level, there exists significant association between type of establishment and overhead cost. Hence, the null hypothesis is rejected.

Findings of the Study

To find out factors which influence the coir industry problems is analysed by using Chi-square analysis. In this analysis, the variable - type of establishment is compared with the other variables, such as supply of power, supply of labour, labour co-ordination, labour performance, availability of raw material, less production innovation, government concession for coir production, problem on exporting goods, raw material cost, transportation cost, labour cost, cost of power and overhead cost. The variables such as supply of power, labour co-ordination, labour performance, government concession for coir production and overhead cost are significantly associated with the variable - type of establishment. Hence the null hypotheses of these variables are rejected. And the variable, such as supply of labour, availability of raw material, less production innovation, problem of exports, raw material cost, transportation cost and labour cost and cost of power are not associated with the variable - type of establishment. Hence, the null hypotheses of these variables are accepted.

Suggestions

From the view point of the objectives and findings of this study, the following suggestions which are focused on supply of power, raw material supply, labour supply, labour co-ordinations and working performance, raw material, labour, transport cost, problem on export and tax concessions etc., can be helpful to improve coir industry in future.

- The Government can motivate the employees to do the work in an efficient manner.
- To reduce wage differentiation among male and female labours.
- To train the workers for quality improvement.
- To educate the workers on the best practices of yoga and meditation for better co-ordination.
- The Government may establish a separate department to safe guard the welfare of the coir industry workers and enforce labour welfare measures such as group insurance, provident fund and medical facilities for coir workers.
- The Government must take the effort to increase the wages of coir industry workers.
- The government may provide minimum amount of pension to the coir industry workers when they are unable to do the work or at their old age.
- Minimum and Maximum age limit may be fixed by the Government. It should be strictly implemented to avoid the employment of children and old age group.
- Accident benefit may be given by the government to the coir industry workers.
- Introduction of improved machines and appropriate technology.
- To develop the innovative technologies for more production.
- To introduce financial assistance for technology up gradation and modernisation.
- Implementation of quality concepts and ISO certification.
- Publications of periodicals for sharing ideas and experiences.
- Government should facilitate co-ordination in supply of coir products and reduce variations in quality and price

Conclusion

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. A further development of the industry can pave the way for substantial progress in the economic conditions of rural people, which ultimately will lead to their welfare and development.

References

1. Philip Mathew M., (1952), "Coir Industry in Trouble", Economic and Political Weekly, November 29, pp: 1226 – 1227.
2. Bhaskaran Unnithan K., (1970), "Coir Industry in India with Special Reference to Marketing and Trade", Coir Board, Ministry of Micro, Small and Medium Enterprises, Kochi.
3. Pylee (1975), "A Study of Coir Industry in India: Problems and Prospects", Coir Board, Ministry of Micro, Small and Medium Enterprises, Kochi.
4. Alexander J., (1976), "Coir Industry of India and Export Markets", Journal of Industry and Trade, October, pp: 15-18.
5. Ajith Kumar P., (1987), "Home Market of Coir", Coir News, 31(1), Coir Board, January, pp: 9-11.
6. Government of Kerala (1990), "Status of Coir Industry", Kerala State Planning Board, Kerala.
7. Government of Kerala (1990), "Report on Coir Worker's Census in Kerala", Department of Economics and Statistics, Kerala.
8. Government of India (1994), 'Survey of Coir Industry in Tamil Nadu', Government of Tamil Nadu and Coir Board, Kochi.
9. Joseph and Thomas T., (1995), "Coir Products- Modern Trends", Souvenir, Department of Coir Development, Thiruvananthapuram, pp: 109-113.
10. Kerala Statistical Institute (1997), "Survey of Coir Industry in Kerala", Kerala.
11. Dhanya G., (1999), "Problems of Women Workers in Coir Industry", Project Report, School of Gandhian Thought and Development Studies, M.G. University, Kottayam.
12. Kutty V.K.K., (1997), "Marketing Strategy for Promoting Sales of Coir Products", Coir News, 28(1), Coir Board, January, pp: 21-24.
13. Mary Philip, Neena (1999), "Women in Unorganized Sector- A Study of Coir Workers in Thanneermukkom Village", M.Phil. Dissertation, School of Gandhian Thought and Development Studies, M.G. University, Kottayam.
14. Christy (2000), Paper Presented at the XXXVII Cocotech 2000, held at Chennai.
15. Gandhi. G.N., (2001), "Export of Coir Products in the Emerging International Business Scenario", Paper presented at the International Seminar on Coir, Coir Board, Kochi, October 11-13.
16. Goel (2001), "Development of Coir in Domestic Market", Paper Presented at the International Seminar on Coir, Coir Board, Kochi, October 11-13.
17. Christy Fernandez (2003), "Coir for Eco-Development", Coir News 32(6), June 20, 2003.
18. Chandran C., (2005), "Coir Fibre with Myriad Uses", The Hindu Survey of Indian Industry, pp: 373-375.
19. Sugunendran K., (2007), "Coir Industry – Road to Growth", Indian International Coir Fair, Souvenir, Coir Board, Ministry of MSME, Government of India, pp. 45.
20. Kumaresan A., (2009), "Coir Exports: on the Growth Path", Facts for You, 30(1), October.
21. Dr. Seeni Kamal M., (2009), "Coir Products and Their Process in Tamil Nadu", Kisan World, 36(8), August, pp: 20-21.
22. Sabarinath K., (2010), "Modernisation of Coir Industry in Kerala: A Multinational Impact Analysis" Doctoral Thesis, Pondicherry University, Pondicherry.
23. Nagaraja G., (2011), "Export of Coir and Coir Products from India", International Journal of Research in Commerce, Economics and Management, 1(6), October, pp: 109-111.
24. Shanmugapriya B., Saranya and Abinaya S., (2011), "Coir Industry – Opportunities and Challenges", Kisan World, May, pp: 37-39.
25. Srinivasan R., (2011), "Coir the Golden Fibre", Facts for You, 31(11), August, pp: 13-15.
26. Chennakrishnana P., (2012), "Coir Production and its Export", Kisan World, 39(3), March, pp: 14-19.
27. Nagaraja Guruvappa (2013), "Coir Industry in India: Trends, Prospects, Marketing and Problems", LAPMBERT Academic Publishing, Germany.
28. Ramamurthy K., Brindha G. and Kanimozhi K., (2013), "Coir Industry Needs to Reinvent Itself", Facts for You, 33(4), January, pp: 25-28.
29. Samsai T. and Mahendran K., (2014), "An Economic Analysis of Production Performance of Coir Fibre Industry in Western Region of Tamil Nadu", International Journal of Commerce and Business Management, 6(2), April, pp: 211-215.
30. Shiny Philip (2014), "A Study of Manpower Resource Management in Coir Industry" Doctoral Thesis, Department of Rural Industries and Management, The Gandhigram Rural Institute, Dindigul.