PROBLEMS AND PROSPECTS OF MANUFACTURING OF COIR PRODUCTS IN INDIA

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Abstract
Manufacturing is like basic building block of every business. In every process some problems will be there. It is not an exemption to coir industry. Manufacturing problems in coir industry mainly includes Problems in raw materials and problems regarding labour. The main Problems in raw materials are rising price, shortage of raw materials, quality, wastage and government interventions. Conflicts and strikes, wages, absenteeism, non-availability and wastage of time are the foremost problems regarding laboures. In this paper, deals whether there is having a relationship between demographic profile of the respondents with the raw material and labour

Keywords: coir products, raw materials problem, labour problem, demographic profile, Manufacturing of coir.

Introduction

Coir industry is one of the largest producer in India particularly in pollachi taluk, Tamilnadu. Coir is extracted from coconut husks. Coir pith, coir bricks, coir mats, coir matresses etc are the important coir products. Manufacturing is the first and foremost process in coir industry for making coir products so, for this, raw materials and labour source are necessary one. Coir industry is an agro based industry, where more than 7 lakh people's are get employment and coir industry are well known for major role in provide employment. Coir industry become more fame due to sustainable development and more than 70% are women employees are worked there. Cordage, packaging, bedding, flooring and more are the various uses of coir industry and it's products.Coir products are natural not an artificial due to it serves and gives various benefits to agriculture and horticulture. Today, World coir production is 250000 tonnes and this products are not limited to a specific country, coir products exported to various countries.

Review of literature

Dr. Nagaraja Guruvappa (2012) There is high demand for Indian coir products in both the domestic and international markets due to special characteristics like price, quality, non-pollutant, fitness, eco-friendliness, and craftsmanship, and also because the coir industry provides employment to more than 700,000 people. The main labor-intensive items are mats and mattings.

Rayasingh madhubrata (2010) Critically analyse the problems and prospects of the coir industry with special reference to the Puri district in Orissa. Discuss the issues that the coir industry and workers in this district are facing.The green money spinner indicates further research into local economic and sustainable development.

Karuppasamy K (2018 The article mainly reveals the production problems faced by small units when using E-Commerce technologies. The coir industry in India is a rural, agro-based, and cottage industry. The main drawback of the coir industry was that it did not get enough support from the government, banks, financial institutions, and other lending institutions. To fulfil the demand, the coir industry should concentrate on the quality of goods and services. It also helps to attract national as well as international customers. The analysis of this study revealed that on the basis of mean score, inadequate finance secured the first rank; that is, the mean score is 70.74..

Objective of the study

1. To analyse the demographic profile of coir industry
2. To test the source of raw materials, problems regarding raw materials and labour

Rationale of the study

Coir industry is the leading industry in India. But after pandemic, the growth was slightly reduced. Moreover some problems in raw materials and laboures causes more disturbances in manufacturing of coir products. So these problems in raw materials and laboures demands a thorough investigation into the problems and measures to plug the loopholes and find remedies to the problems.

Hypothesis of the study

1. $H_{0=}$ There is no significant difference between source of raw materials and total investment and $H_{1=}$ There is significant difference between source of raw materials and total investment

2. $H_{0=}$There is no significant difference between supply of raw materials and problems regarding raw materials and $H_{1=}$ There is significant difference between supply of raw materials and problems regarding raw materials

3. $H_{0=}$ There is no significant difference between the problems regarding labourers and labour working hours and .H_1=There is significant difference between labour working hours and problems regarding labourers

Research Methodology

The present study is descriptive, analytical in nature and primary data(interview schedule) is used for data collection. The study attempts to assess problems regarding raw materials and laboures in manufacturing of coir products.

Study area: The study area is choosed on the basis of populatity, Pollachi taluk is located in coimbatore district, Tamilnadu where coir industry and it's products are very trendy in those areas. That's why pollachi taluk is selected for this study

Sampling design: convenient sampling is the sampling method used for data collection. For this ,10 coir industries were selected as the sampling design to this study.

Statistical tools used in the study: This study is focussed to find out the degree of significant relationship between the independent and dependent Variables. Independent sample t test, Chi – square test and one way ANOVA was applied for test those variables. Percentage analysis have been used for the Interpretation of the data.

Percentage analysis: It is used to express the opinion of the respondents

Independent sample t test: it is a parametric test. It is used for compare means

Chi-square test: It is used to test the personal variables and level of satisfaction

One way ANOVA: It is used for analysis the significant relationship between variables.

Demographic profile of coir industry

The profile of sample explaining the demographic features of coir industry is presented in the table given below

Table 1 Demographic profile

Demographic factors	Categories	No .of respondents	Per cent
Type of industry	Sole proprietorship	8	80
	Partnership	2	20
	Total	10	100
Nature of unit	Owned	6	60
	Rented	4	40
	Total	10	100
Total investment	Below 25 lakhs	2	20
	25-50 lakhs	6	60
	Above 50 lakhs	2	20
	Total	10	100
Annual turnover	Below 25 lakhs	1	10
	25-50 lakhs	3	30
	Above 50 lakhs	6	60
	Total	10	100

Source: Primary data

The table 1 exhibits the profile of the sample respondents selected for the study. It is observed that majority of the sample range from type of industry is sole proprietorship (80 percent). Nature of unit wise classification shows that out of 10 samples selected owned unit constitute 60 percent and rented unit comes to 40 percent. As to total investment 60 percent of the respondents are have 25-50 lakhs. Annual turnover shows that 60 percent of samples are belongs to turnover of above 50 lakhs. In type of industry, partnership only have 20 per cent of the respondents. Only 40 percent of the respondent's nature of unit is rented. Only 2 respondents' total investment is above 50 lakhs. In the case of

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annual turnover, 10 percent of the respondent's turnover is below 25 lakhs.

Source of raw material

The source of raw material for manufacturing in coir industry are from wholesalers, agency and

manufacturers. Here chi-square test used for finding association between source of raw materials and total investment.

Table 2.chi-square Test Statistics

	manufacturers	agency	wholesalers
Chi-Square	.400[a]	.400[a]	6.400[a]
df	1	1	1
Asymp. Sig.	.527	.527	**.011**

Source: Primary data

Significant at 5 per cent level

The results of chi-square among the source of raw materials from wholesalers and total investment gives **chi-square value of 6.400** which are significant at 5 per cent level **(p=0.11)**. Hence null hypothesis is rejected. This implies that there is significant association between from wholesalers and total investment. But in the case of directly from wholesalers and from agency gives **chi-square value of 0.400 and 0.400**

which are not significant **(p=0.527 and 0.527).** Hence null hypothesis is accepted. This means there is no significant association between directly from wholesalers, from agency and total investment.

Problems regarding raw materials

Independent sample t test is used to test the significance between problems regarding raw materials based on supply of raw materials.

Table 3.Problems regarding raw materials-Descriptive statistics

	Satisfy the supply of raw material	Mean	Std. Deviation
Rising price	Yes	2.8750	1.80772
	No	**5.0000**	.00000
Shortage of raw material	Yes	2.6250	1.18773
	No	4.5000	.70711
Quality	Yes	1.6250	1.06066
	No	4.0000	.00000
Wastage	Yes	2.5000	1.51186
	No	2.0000	1.41421
Government interventions	Yes	2.3750	1.30247
	No	3.0000	1.41421

Source; Primary data

Table 4.Problems regarding raw materials Independent sample t test

Levene's Test for Equality of Variances		
F	Sig.	t
19.314	**.002**	-1.590
1.188	.307	-2.083
2.611	.145	-3.028
.229	.645	.422
.114	.744	-.600

Source: Primary data

The independent sample t test table shows that in the case of rising price **t and f value is -1. 590 and 19.314** which are significant at 5 percent level **(p=0.002).** Hence null hypothesis is rejected. This states that there is significant difference between Rising price and satisfaction

of raw materials. All other variable except rising price not significant at 5 per cent level. So null hypothesis is not rejected, This clearly shows that there is no significant difference between shortage of raw materials, quality, wastage , government interventions and satisfaction of

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raw materials. In rising prices there is not satisfied with supply of raw materials, there is a high **mean score is 5.**The least in the case of problem regarding quality, the supply is satisfied the **mean is 1.6250**

Problems regarding labours
One way ANOVA is used to test the problems regarding labours based on labour working hours

Table 5. Problems regarding labours-Descriptive statistics

		Mean	Std. Deviation
Conflicts and strikes	Less than 8 hours	1.5000	.70711
	8 hours	1.5000	.54772
	More than 8 hours	1.0000	.00000
	Total	1.4000	.51640
Wages	Less than 8 hours	1.5000	.70711
	8 hours	1.1667	.40825
	More than 8 hours	1.0000	.00000
	Total	1.2000	.42164
Non availability of labourers	Less than 8 hours	**4.5000**	.70711
	8 hours	3.5000	1.64317
	More than 8 hours	1.0000	.00000
	Total	3.2000	1.75119
Absenteeism	Less than 8 hours	**4.5000**	.70711
	8 hours	3.5000	1.04881
	More than 8 hours	1.5000	.70711
	Total	3.3000	1.33749
Wastage of time	Less than 8 hours	3.0000	2.82843
	8 hours	1.8333	.98319
	More than 8 hours	3.5000	.70711
	Total	2.4000	1.42984

Source:Primary data

Table 6.Problems regarding labours-One way Anova

		Sum of Squares	Df	Mean Square	F	Sig.
Conflicts and strikes	Between Groups	.400	2	.200	.700	.528
	Within Groups	2.000	7	.286		
	Total	2.400	9			
Wages	Between Groups	.267	2	.133	.700	.528
	Within Groups	1.333	7	.190		
	Total	1.600	9			
Non availability of labourers	Between Groups	13.600	2	6.800	3.400	.093
	Within Groups	14.000	7	2.000		
	Total	27.600	9			
Absenteeism	Between Groups	9.600	2	4.800	5.169	**.042**
	Within Groups	6.500	7	.929		
	Total	16.100	9			
Wastage of time	Between Groups	5.067	2	2.533	1.330	.324
	Within Groups	13.333	7	1.905		
	Total	18.400	9			

Source: Primary data

Significant at 5 per cent level
The result of the One way ANOVA for the variable absenteeism across laboures working hours gives **F value of 5.169**, which are significant at 5 per cent level (**p<0.05**). Hence

the null hypothesis is rejected. This implies that there is significant difference in the mean scores obtained for absenteeism across labours working hours in coir industry. In the case of all problems regarding laboures except absenteeism, the

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corresponding **F value of 0.700,0.700,3.400 and 1.330** is found to be not significant at 5 per cent level **(p>0.05)**. Hence, the null hypothesis is not rejected. This implies that there is no difference in the mean scores obtained for conflicts and strikes, wages, non availability of laboures, wastage of time and laboures working hours. The wages of workers and non availability of labourers in less than 8 hours has more (**mean score 4.50)**

Findings

1. Majority of the sample range from type of industry is sole proprietorship (80 percent). Nature of unit wise classification shows that out of 10 samples selected owned unit constitute 60 percent and rented unit comes to 40 percent. As to total investment 60 percent of the respondents are have 25-50 lakhs. Annual turnover shows that 60 percent of samples are belongs to turnover of above 50 lakhs.

2. The results of chi-square among the source of raw materials from wholesalers and total investment gives chi-square value of 6.400 which are significant at 5 per cent level (p=0.11) . Hence null hypothesis is rejected

3. The independent sample t test table shows that in the case of rising price **t and f value is -1. 590 and 19.314** which are significant at 5 percent level **(p=0.002).** Hence null hypothesis is rejected. This states that there is significant difference between Rising price and satisfaction of raw materials

4. The result of the One-way ANOVA for the variable absenteeism across laboures working hours   gives F value of 5.169, which are significant at 5 per cent level (p<0.05). Hence the null hypothesis is rejected. This implies that there is significant difference in the mean scores obtained for absenteeism across labours working hours in coir industry.

Suggestions

1. It is suggested that coir industry should concentrate the quality and government interventions for reducing the problem regarding raw, materials

2. Motivation, incentives to workers should implement for avoid wastage of time and abseenteeism of workers

3. Continue assessment of supply of raw materials leads to increase satisfaction in the time of supply of raw materials.

Conclusion

 Coir industry is like a sky and it has no limit for this industry and it's products. It is concluded that Coir industry growth is slightly reduce after the pandemic. Because of various factors like shortage of raw materials, delay in supply of raw materials, abseenteeism of labourers, Non availability of workers etc.. For reducing this problems, coir industry and government should take proper actions or provide some remedies for improving the manufacturing and growth of raw materials. And also if the manufacturing problems will he solved, there is no doubt the growth of coir industry will reach its peak.

Reference

1.dr.nagaraja guruvappa, (2012) "coir industry in india: trends, prospects, marketing and problems"lamber academy publications.

2.rayasingh madhubrata, (2010) "coir industry-the green money spinner and the   economic perspective of agro-based industry in the age of sustainable development"s

3.karuppasamy k., (2018), " analysing production problems faced by small coir units by using e-commerce technology ", e-commerce for future and trends, vol. 5(2), pp. 6-8.

4.dr.mohanraj n. And latha s., (2017) " a study on problems and prospects of women in coir industry with special reference to singampunari,sivagangai district", international journal of computational research and development, volume:2, pp:118-123.

5.https://www.google.com/url?sa=t&source=web&rct=j&url=http://coirboard.gov.in/%3fpage_id%3d3475&ved=2ahukewjo3mz0ucd4ahvl2dgghd4vdhqqfnoecbeqaq&usg=aovvaw35e5bgugatt1n5tdh-zocw

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