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A STUDY ON DETERMINANTS OF PROBLEMS IN COIR INDUSTRY IN KARNATAKA - WITH REFERENCE TO TUMKUR DISTRICT

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Abstract
The coir industry is one of the traditional and agricultural based industries in India. It is labour based industry with play an important role in Indian economy. There are number of problems arising while collection of raw materials to marketing of finished coir based product. Such as (Coirfiber, Coir yarn, Coir mat and Coir rope) therefore, it is need to know that what is feasible and what is not feasible among the various activities listed in the present context and future of coir products sector in the country. Presently the coir industries are facing Production; labour, Overhead, Sales & Distribution problems. Capital is one of the financial assets of any business and is used to generatewealth through investment. Hence the problems are connected with variables, such as power supply. Labour requirement, labour co-ordination, labour performance, availability of raw material, etc. The present study focused on variables, such as labour cost, concessions offered by the Government, problem of exports, concession on marketing facilities, technical training, import of machinery, import of materials, supply of power, supply of labour, labour coordination,labour working performance, availability of raw material, raw material cost, transport cost, cost of power, Overhead cost, less product innovation, concession for new product innovation, tax concession, subsidy and excise duty are not associated with the capital. The present study is given various measures to overcome problems and suggest improving coir industry in future.

Key words: Coir Products, Production, Overhead, labour, Sales and Distribution, etc.

Introduction

The coir industry in India is an important agro based and traditional cottage industry, especially in the rural sector providing with employment. It is highly labor-intensive based industry covering different types of activities such as mobilization of husk, fiber extraction, retting, spinning and manufacture of coir and coir products. Coir industry mainly focused on economically weaker section of the rural population. Development of the industry depends on the availability of the basic raw material which is obtained from coconut. Therefore, coconut is of great relevance in the coir sector. Coconut husk is the basic raw material for coir products and it is used to produce coir products. Hence, there is scope for growth of coir industry in India.

There is a great demand for coir products all over the country. Coir Board, through its research and development wing, keeps on finding new products for newer usage. There are different types of coir and coir products. i.e.. Coir fiber, handloom mats. Geo-textiles, coir yarn, floor mats, handloom matting, power loom mat, rubberized coir, tufted mat, coir rugs, coir carpets, coir brooms, curled coir, mattresses, coir ropes, anti-weed blankets, erosion control blankets, fishing nets, coir polymer composites, coir pith - a by-product, coir poles and coir needled felt. With this huge abandon information, the present paper focused and analyzed the problems of coir industry in Tumkur and Hassan district in Karnataka.

Statement of the Problem

The coir industry is one of the agricultural and traditional industries. It is a labour oriented industry andplays an importantrole in development of rural economy of India. Coir and coir products is base for living of the people in both rural and urban areas. However, the problems may arise from mobilization of capital which are allocate under production cost, labor cost, Overhead cost, Sales and distribution cost. It is need to review what are all the cost related problems facing by the industries and what is feasible and what is not feasible among the various activities listed in the present context and future of coir products sector in the country. The different problems have encouraged the researcher to analyze the determinants of various problems of coir industry in Karnataka with special reference to
Tumkur.

Objectives of the study

1. To know the various problems facing by a coir product manufacturing industries
2. To analyze the determinants of coir industry problems in TumkurDistrict and to suggest remedial measure to overcome it.
3. To know the Production, Labor, Overhead, Sales and Distribution cost of coir product manufacturing industries.
4. To know the labour working performance in coir industries
5. To suggest suitable policies for further improvement of coir industry.

Hypothesis of the study

1. H0: there is no significance relationship b/w production cost and coir product manufacturing industry.
2. H0: There is no significance relationship b/w labor Cost and Coir product manufacturing industries.
3. H0: There is a significance relationship b/w Overhead cost and Coir product manufacturing industries.
4. H0: there is no significance relationship b/w Sales and Distribution Cost and coir product manufacturing industries.

Limitations of the study

1. The study is limited to know the problems of coir product manufacturing industries
2. The area restricted to only Tumkur District.
3. Only few industries selected for analysis of the study.
4. The analysis is done with the help of only selected statistical tool.

Sources of Data Collection

Primary Data:- The primary data is collected through survey, such as questionnaire, observation and direct interaction with the respondents.

Secondary Data:- The secondary data is collected through published sources like Journals, Published reports, Books and E-sources.

Methodology: - The survey was conducted on the basis of convenience sampling method. For developing a sample design, totally 25 Industries were selected for this study.

Statistical Tools Used in the Study:- In the study to find out the degree of significant relationship between the independent and dependent variables, ANOVA test was applied. Percentage analyses and F-limit (F-table) have been used for the interpretation of the data.

Percentage Analyses: The percentage technique has been used throughout the report to express the opinion of the respondents.

ANOVA Techniques:-For testing the relationship between personal variables of the respondents and level of satisfaction, ANOVA Test has been used. For computing ANOVA Techniques, the following formula has been used.

Where ….. Mean:- $X1= Xij +Xij +Xij + Xij/ N$

SS b/w Samples:- $n1 (X1 – X)2 + n2 (X2 – X)2 +n3 (X3 – X)2$

SS Within = $(X1i – X1)2 + (X2i– X2)2 + (X3i – X3)2$

SS for Total Variance:- $(Xij – X)2$

The calculated value of ANOVA is measured with the table value of F-distribution for given level of significance usually at five per cent level. If the calculated value (C.V) is less than the table value (T.V), the null hypothesis is accepted and otherwise it is rejected.

Analysis and Interpretation: An attempt had been made to analyze the socio-economic feature of the selected respondents regarding the cost of aspect of coir product manufacturing industries such as Production cost, Labor cost, Overhead cost and Sales and Distribution cost.

Sl.No	Particulars	Mean	SS Between	SS Within	Total Variance of SS
01	Production Cost	8.33	4.1335	153.11	157.24
02	Labour Cost	8.33	112.9335	58.4	171.35
03	Overhead Cost	8.33	76.1335	127.2	203.35
04	Sales &Distribution Cost	8.67	10.15	193.6	203.75

Production Cost

Production Cost	High (%)		Moderate (%)		Low (%)		Total (%)	
Raw Material Cost of Production	7	28	10	40	8	32	25	100
Labor Cost of Production	15	60	5	20	5	20	25	100
Overhead Cost for production	10	40	8	32	7	28	25	100
Cost of Direct tax or GST	10	40	10	40	5	20	25	100
Other expenses for production	2	8	10	40	13	52	25	100

Sources of Variation	SS (Sum of Squares)	d.f (Degree of Freedom)	MS (Means Square)	F- ratio	5% F-limit (F- table)
B/W Sample	4.1135	3-1= 2	4.1335/2 = 2.06675	2.0664/11.2314 = 0.1840	**0.1840 (Computed)**
Total Variance	157.24	15-1=14	157.24/14 = 11.2314		Table Value = 3.74

Hence Calculated value is 0.1840 which is less than table value = 3.74 @ 5% significance level and d.f V1=2 V2= 14. So Null hypothesis accepted and alternative hypothesis reject.

Labor Cost

labour Cost	High (%)		Moderate (%)		Low (%)		Total (%)	
Payment of wages	15	60	8	32	7	28	25	100
Payment of incentives or perquisites	10	40	10	40	5	20	25	100
Deductions for idle time	15	60	5	20	5	20	25	100
Bonus, Production incentive, Increment and other allowances	10	40	10	40	5	20	25	100
Based on Time and Piece rate	15	60	5	20	5	20	25	100

Sources of Variation	SS (Sum of Squares)	d.f (Degree of Freedom)	MS (Means Square)	F- ratio	5% F-limit (F- table)
B/W Sample	112.9335	3-1= 2	112.9335/2 = 56.4467	56.4667/12.2381 = 4.61	**4.61** (Computed)
Total Variance	171.3335	15-1=14	171.3335/14 = 12.2381		Table Value = 3.74

Hence Calculated value is 4.61 which is more than table value = 3.74 @ 5% significance level and d.f V1=2 V2= 14. So Null hypothesis rejected and alternative hypothesis accept.

Overhead Cost

Overhead Cost	High (%)		Moderate (%)		Low (%)		Total (%)	
Manufacturing Cost	15	60	5	20	5	20	25	100
Office and Administration Cost	12	48	8	32	5	20	25	100
Govt tax, Cess etc.	05	20	15	60	5	20	25	100
Cost of Marketing	12	48	7	28	6	24	25	100
Maintenance Cost	08	32	12	48	5	20	25	100

Sources of Variation	SS (Sum of Squares)	d.f (Degree of Freedom)	MS (Means Square)	F- ratio	5% F-limit (F- table)
B/W Sample	76.1335	3-1= 2	76.1335/2 = 38.0667	38.0667/14.5238 = 2.6209	**2.6209 (Computed)**
Total Variance	203.3335	15-1=14	203.3335/14 = 14.5238		Table Value = 3.74

Hence Calculated value is 2.6209 which is less than table value = 3.74 @ 5% significance level and d.fV1=2 V2= 14. So Null hypothesis accepted and alternative hypothesis reject.

Sales and Distribution Cost

Sales and Distribution Cost	High (%)		Moderate (%)		Low (%)		Total (%)	
Cost of Packing of finished product	5	20	15	60	5	20	25	100
Cost of Sales of product	15	60	5	20	5	20	25	100
Cost of R&D for innovation of product	16	64	5	20	4	16	25	100
Cost of Tax payment made by company	10	40	10	40	5	20	25	100
Transportation Cost of finished product	12	48	8	32	5	20	25	100

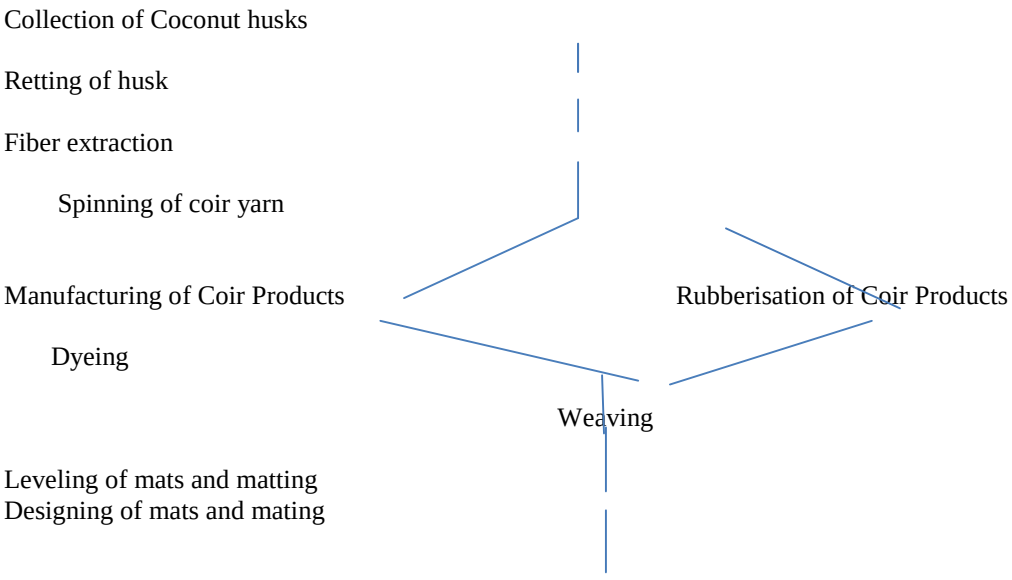
Sources of Variation	SS (Sum of Squares)	d.f (Degree of Freedom)	MS (Means Square)	F- ratio	5% F-limit (F- table)
B/W Sample	10.1449	3-1= 2	10.1449/2 = 5.0724	5.0724/14.5532 = 0.3485	**0.3485 (Computed)**
Total Variance	265.0355	15-1=14	203.7449/14 = 14.5532		Table Value = 3.74

Hence Calculated value is 2.6209 which is less than table value = 3.74 @ 5% significance level and d.fV1=2 V2= 14. So Null hypothesis accepted and alternative hypothesis reject.

Production Processes in Coir Industry

The production of process of coir starts from the extraction of coir fiber involving lengthy process of either retting or un-retting of coconut husk. Thus, the process of the extraction of the fiber is done through two methods viz the traditional methods (retting)and the mechanical method (un-retting).The traditional method is generally followed in coastal areas where brackish water facility is available. This method is gradually on the wane as the production of coir fibreand coir products spreads to non-traditional areas. The advent of the mechanical method of extraction reduces the period of retting and speeds up the products of fiber. By usingcoir fiber, coir yarn, coir products and rubberisation of coir products are affected. The following figure depicts the production process involved in the Coir Industry.

Production Process in Coir Industry



Findings

1. The above study shows that 28% of respondents think raw material cost of production is high, 40% respondent's opinion on moderate and 32% respondent's opinion on low. In case Labor cost 60% respondent's opinion on High, 20 % respondents on moderate and 20% respondents on low. In overhead cost 40% respondents opinion on high, 32% on moderate and 28% on low. In direct tax or GST 40% respondent's opinion on high, 40% on moderate and 20% on low. In case other expense 8% on high, 40% on moderate and 52% on low.

2. The labor cost concern 60% of respondents think wages of payment is high, 32% respondent's opinion on moderate and 28% respondent's opinion on low. In incentives 40% respondents opinion on High, 40 % respondents on moderate and 20% respondents on low. In case of deduction for idle time 60% on high, 20% on moderate and 20% on low. In case of bonus, production incentive and other allowances 40% on high, 40% on moderate and 20% on low. In case of wages based on time and piece rate 60% on high, 20% on moderate and 20% on low.
3. Overhead cost represents 60% of respondents think manufacturing cost is high, 20% respondent's opinion on moderate and 20% respondent's opinion on low. In case Office and administrative expenses 48% respondents opinion on High, 32 % respondents on moderate and 20% respondents on low. In case of Govt tax and cess 20% on high, 60% on moderate and 20% on low. In case of Marketing cost 48% on high, 28% on moderate and 24% on low. In case of Maintenance cost 32% on high, 48% on moderate and 20% on low.
4. Sales and distribution cost concern 20% of respondents thinkpacking of finished products cost is high, 60% respondent's opinion on moderate and 20% respondent's opinion on low. In case cost of sale of product 60% respondents opinion on High, 20% respondents on moderate and 20% respondents on low. In case of R&D 64% on high, 20% on moderate and 20% on low. In case of Tax payment 40% on high, 40% on moderate and 20% on low. In case of Transportation cost of finished product 48% on high, 32% on moderate and 25% on low.

Suggestion

1. The maximum number of coconut growers isin Tumkur district in Karnataka and maximum number of coir product manufacturing industries situated in tumkur district.
2. The maximum coir industries are situated in Tumkur district in Karnataka. Hence there is a huge opportunities to establish new firms.
3. Presently coir industries are facing Production, labour, Overhead and Sales & Distribution problems
4. Government have to take remedial measures to overcome the problems facing by coir industries
5. Government has to give subsidy for equipment, machineries for production and at the time of marketing the coir product, to overcome the problems facing by industries.

Conclusion

Coir product manufacturing industries are facing production, labour, Overhead, Sales & distribution problems and they are playing a vital role in economic aspects of the district. Most of the coir product manufacturing industries are situated in Tumkur district and maximum number of agriculturist are engage in cultivate process. Govt has to take remedial measures to overcome the graviencess and give some subsidy for cultivators as well as industries while purchase of equipment, machineries. Coconut is the main commercial crop of the district, all types of resources are available to growers and industries for expansion as well as expand the production activities.

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Questionnaire

Production Cost	**High**		**Moderate**		**Low**		**Total**	
Raw Material Cost of Production								
Labor Cost of Production								
Overhead Cost for production								
Cost of Direct tax or GST								
Other expenses for production								

labour Cost	**High**		**Moderate**		**Low**		**Total**	
Payment of wages								
Payment of incentives or perquisites								
Deductions for idle time								
Bonus, Production incentive, Increment and other allowances								
Based on Time and Piece rate								

Overhead Cost	**High**		**Moderate**		**Low**		**Total**	
Manufacturing Cost								
Office and Administration Cost								
Govt tax, Cess etc.								
Cost of Marketing								
Maintenance Cost								

Sales and Distribution Cost	**High**		**Moderate**		**Low**		**Total**	
Cost of Packing of finished product								
Cost of Sales of product								
Cost of R&D for innovation of product								
Cost of Tax payment made by company								
Transportation Cost of finished product								