REDVET - Revista electrónica de Veterinaria - ISSN 1695-7504
Vol 25, No. 1S (2024)
http://www.veterinaria.org
Article Received: 20/08/2024 Revised: Accepted: 11/09/2024

Workers Satisfaction in Coir Units in Theni

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Abstract. This study examines the relationship between various factors and job satisfaction among workers in the coir industry. The research applies Chi-square analysis to assess associations between years of experience and satisfaction levels, finding a significant correlation ($\chi 2 = 32.157$, $P = 0.000$). Similarly, analysis of basic work status reveals a significant impact on satisfaction levels ($\chi 2 = 28.962$, $P = 0.000$). Agricultural workers tend to report higher satisfaction compared to industry-based workers. Factors influencing satisfaction include wages, safety measures, and the influence of community background. Challenges identified include seasonal labor fluctuations and resistance to training among workers. The findings emphasize the importance of addressing these factors to enhance job satisfaction and productivity in the coir industry.

Keywords: First Keyword, Second Keyword, Third Keyword.

1 Introduction

The coir industry, known for its labor-intensive nature, faces significant challenges in managing its workforce effectively. This study explores various factors influencing job satisfaction among coir industry workers, including their years of experience and basic work status. Understanding these dynamics is crucial for enhancing overall productivity and addressing workforce issues unique to the industry.

The Chi-square analysis is applied to test the association between the different years of experience and satisfaction level based on the score by framing the null hypothesis. Chi-square test was conducted to find the association between the year of experiences and satisfaction level. At 5% level of significance is 0.05. The test result shows that ($\chi^2 = 32.157$, $P = 0.000$). Therefore, it can be inferred that there is association between the year of experience and satisfaction level based on the score. Hence, the null hypothesis is rejected.

Since the calculated value is more than the table value, the null hypothesis does not hold true. It is clear from the analysis that there is association between the years of experience of the workers and their level of satisfaction is statistically significant.

2 Basic Work Status of Workers and Satisfaction

Most workers working in the coir units of the study area are not full-fledged industrial workers. Most of the workers on the rolls are basically agricultural laborers. Therefore, the total working force of the industry can be categorized on their basic status as agri-based workers and industry-based workers. Hence, the basic work status of the sample workers is considered an important variable which may influence their level of satisfaction in the industry. It is analyzed and presented in Table 6.8.

3 Basic Work Status of workers and Average Satisfaction Scores

Table 1 presents the average satisfaction scores of the sample workers based on their basic work status.

TABLE 1. Basic Work Status And Average Score Of Sample Workers

Sl. No	Basic Work Status	No. of respondents	Average Score	Range
1.	Agri-based	221	53.96	48 – 65
2.	Industry based	172	52.66	48 – 63
Total		393	53.36	

It is observed from Table 1 that the average satisfaction scores of the different category of workers status according to their work vary from 52.66 to 53.96. 161 sample workers whose basic work status is agri-based, have scores between 48 and 65 and their average score is 53.96. Among them 64 workers (39.75 per cent) have below average scores and 97 workers (60.25 per cent) have above average scores.

The scores of 139 sample workers whose basic work status is industry- based range from 48 to 63 and their average score is 52.66. Among them 79 workers (56.83 per cent) have their score below average and 60 workers (43.17 per

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cent) above average. It is also understood from the table that the average scores of the workers is higher among the workers whose basic work status is agriculture compared to the industry-based category of workers in the study area. The different level of satisfaction of workers according to their basic work status is presented in Table 2.

The association between the Basic work status and satisfaction level based on the score
H_0: There is no association between the Basic work statusand satisfaction level based on the score

TABLE 2 Basic Work Status And Level Of Satisfaction

Basic work Status	**Poor n (%)**	**Medium n (%)**	**Total n (%)**	**Inferential Statistics**
Agriculture	48 (39.02)	28 (22.76)	47 (38.21)	χ^2 = 28.962
Industry	69 (38.98)	55 (31.07)	53 (29.94)	P = 0.000
Total	**117 (39.00)**	**83 (27.66)**	**100 (33.33)**	**Significant**

Table 2 shows that out of the 300 sample workers, 177 (59.00 per cent) and 123 (41.00 per cent) belong to the categories of Agri workers and industrial workers. Among the highly satisfied group of workers, 41.00 per cent belong to the agricultural workers category and they have the highest number of highly satisfied workers. 28.21 per cent belong to industrial work category and they have the fewest number of highly satisfied workers. Among the poorly satisfied group of workers, 55.15 per cent belong to the industrial work category and they have the highest number of poorly satisfied workers and 44.85 per cent belong to agricultural workers category and they have fewest number of poorly satisfied workers. The table clearly indicates that the workers who belong to agricultural workers category and are highly satisfied and the worker who belong to the industrial work status category are low satisfied on the working conditions of the coir units. The Chi-square analysis is applied to test the association between the different Basic work Statusand satisfaction level based on the scoreby framing the null hypothesis. Chi-square test was conducted to find the association between the Basic work Status and satisfaction level. At 5% level of significance is 0.05. The test result shows that (χ^2= 28.962, P = 0.000). Therefore, it can be inferred that there is association between the basic work status and satisfaction level based on the score. Hence, the null hypothesis is rejected.

4 Problems Of Human Resources In Coir industry

Coir industries being labor intensive, laborers always remain a significant input in the process of production. The data collected by the survey and the discussion with the owners of the units by the researcher have brought to the fore the major problems faced by the industry in respect of its human resources. By far, the most problems originate from the peculiarities and uniqueness of the labor force engaged in the industry. Most of the workers are women and generally they are not prepared to work night shifts. Most of them are illiterates and basically farm workers. They seek employment in coir units mostly during agricultural off-seasons only. As a result, casual and contract workers are all pervasive in the industry. During the peak agricultural seasons, workers are in short-supply which made owners either to adjust the production schedules or to stop production for the time-being. The off shoot of this situation, affecting continuous and steady extraction of fiber in the peak Agri seasons remains a day dream especially for the smaller units. During the off-seasons, the supply of labor is abundant and the owners of the units have to make use of this excess supply of workers to their advantage, even if other factors of production seaman favorable. Inculcating the industrial work culture becomes a big problem to owners because of the intermittent nature of the employment and their rural mind set. Moreover, most of the workers are in the age group of 20 to 30. As such their expectations are very high on the working conditions and welfare measures of the industry, which could hardly be met by the owners of the units. A major problem which most owners feel bad about is that they could come to know the pressing problems of the workers often very late. It is because of the total absence of worker unions. Absenteeism of the workers is also disturbing in the industry. The workers hailing mostly from rural areas are always unwilling to skip local functions and participate in them in large numbers, even in ordinary family ceremonies, local festivals, small functions and political meetings and processions. These are considered some of the reasons for mass absenteeism in the industry. Moreover, the introduction of sophisticated and modern machinery in the medium units requires imparting of new skills to workers leading to compulsory training. This idea met with stiff resistance from workers' side as most of them are unwilling to attend training. Above all, they are always contented with the status of an ordinary worker and are not prepared to play the full-fledged role of an industrial worker. Therefore, it could be understood that it was the root cause for all the problems confronting the industry to- day. The researcher tried to identify the human resource problems faced by the owners of the coir units of the study area. The identified problems are ranked by making use of Garrett's Ranking Technique and the details are presented in Table 6.9.

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5 Correlation

For this study, a quantitative correlational research design was adopted. Objective measurements combined with statistical analysis or the collection of numerical data are the main emphasis of quantitative research methodologies. Data are acquired using a variety of techniques, including questionnaires. Additionally, several strategies for interpreting historical statistical data are employed. The main goal of this strategy is to collect statistical data in order to generalise it across various demographic groups and provide 300 specifics about a certain phenomenon. Because I could properly investigate the connection between restorative practices and school climate, the approach I picked was the most appropriate for my particular study. Employing a quantitative analysis gave the study's connected workers and owners of coir goods the chance to respond more fully and gave workers a year's worth of experience with income and monthly turnover and average profit in their companies.

We determined the association between the year of experience and income, monthly turnover, and average profit in their enterprises by using the Statistical Package for the Social Sciences (SPSS) to conduct a Pearson's correlation coefficient test. The strength of a linear relationship between two variables is indicated by the Pearson's correlation coefficient, or r. Because this statistical test assesses the linear correlation between two variables, X and Y, it was most appropriate for this particular investigation. It is determined that there are three different types of correlation: no correlation, negative correlation, and positive correlation.

An increase in one variable causes an increase in the other, and a drop in one causes a reduction in the other, which is known as a positive correlation. An increase in one variable causes a decrease in another, a phenomenon known as negative correlation. When there is no association, changing one variable does not affect changing the other, and vice versa. The range of a Pearson correlation coefficient is +1 to -1. A number around zero indicates that the variables are uncorrelated, while a value near +1 indicates a strong positive correlation and a value near -1 indicates a strong negative correlation.

Table 3 The Relationship Between Monthly Income, Year Of Experience, Average Rate Of Profit, Turnover Per Month, Age And Year Of Establishment

Study Parameters		**Monthly Income**	**Year of Experience**	**Average rate of profit**	**Turnover per month**	**Age**	**Year of Establishment**
Monthly Income	Correlation	1	-0.073	-0.168	-0.024	0.123	0.004
	P Value		0.215	0.004	0.679	0.034	0.951
	N	300	300	300	300	300	300
Year of Experience	Correlation	-0.073	1	0.009	0.013	0.171	-0.022
	P Value	0.215		0.880	0.822	0.003	0.703
	N	300	300	300	300	300	300
Average rate of profit	Correlation	-0.168	0.009	1	-0.119	-0.003	0.019
	P Value	0.004	0.880		0.039	0.954	0.744
	N	300	300	300	300	300	300
Turnover per month	Correlation	-0.024	0.013	-0.119	1	-0.041	0.015
	P Value	0.679	0.822	0.039		0.479	0.789
	N	300	300	300	300	300	300
Age	Correlation	0.123	0.171	-0.003	-0.041	1	0.014
	P Value	0.034	0.003	0.954	0.479		0.807
	N	300	300	300	300	300	300
Year of Establishment	Correlation	0.004	-0.022	0.019	0.015	0.014	1
	P Value	0.951	0.703	0.744	0.789	0.807	
	N	300	300	300	300	300	300

***Correlation is significant at the 0.05 level**

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The above table 3 shows that Karl Pearson coefficient of correlation was computed to assess the relationship between the monthly income andaverage rate of profit. The result shows that there was negative no correlation between the monthly income and average rate of profit, r = -0.169, n = 300, P = 0.004. It can be inferred that there is significant difference between monthly income and average rate of profit.

Pearson correlation coefficient was computed to assess the relationship between the Age and year of experience. The result shows that there was no correlation between Age and year of experience, r = 0.171, n = 300, P = 0.003. There is significant difference between Age and year of experience.

6 Factor Analysis Of Production

A statistical method called factor analysis seeks to express a set of variables in terms of a limited number of fictitious variables. Put differently, it provides insight into the underlying structure of data by revealing common dimensions or factors that connect seemingly unrelated variables, thereby simplifying the complicated and diverse relationship among a group of observable variables. This analysis uses advanced statements to find similar ones or to find one or more groups of assertions that produce replies that are significantly connected. The correlations are caused by a single "construct" or "factor," which is represented by each collection of variables.

The extraction of the maximum amount of variation as each factor is evaluated is a mathematically unique aspect of the primary factor analysis approach. A lot of analytical techniques yield results that are hard to read. On the other hand, there are multiple approaches for factor analysis. When using SPSS for factor analysis, the principal factor analysis method with orthogonal varimax rotation is the most popular and accessible approach.

By keeping the angles between the axes at ninety degrees, varimax rotations preserve the independence of factors. The Rotated Factor Matrix, a table of coefficients that expresses the ratio between the variables and the generated factors, is one of the final results of a factor analysis. Communalities are defined as the sum square of the factor loadings of the variables.

Significant factors have a factor loading of a minimum of 0.50. This threshold was set since it was determined that factors that shared less than 50% of the rotational factor pattern's fluctuation were too weak to be reported. In the current study, a substantial set of factors regarding production issues faced by coir fibre extraction facilities in the study area was identified using the principal factor analysis approach with variable rotation.

Cronbach's Alpha	**Number of items**
0.713	15

The Cronbach's Alpha coefficient value is 0.724, for the 15 items employed tomeasure the satisfaction level of coir products users indicating a high level of internal consistency in the items. This value of Cronbach's alpha when used is acceptable and desirable while confirming the scale's reliability.

7 Factor Extraction And Rotation

The rotation total of squared loadings is explained in Table 6.11. It is separated into three subsections: rotation of sums of squared loadings, extracted sums of squared loadings, and initial Eigen values. It is vital to highlight that only extracted and rotated values are useful for interpretation when calculating the number of significant components. Based on the variance that can be most easily explained, the components are presented in descending order. With the exception of factors with Eigen values less than 1, the extraction sums of squared loadings match the initial Eigen values.

The Eigen values and variance are displayed in these columns before rotation. After rotation, the Eigen values and variance are displayed in the Rotation Sums of Squared Loadings. The rotation sums of squared loadings were the only considerations made by the researcher for analysis and interpretation. Table 6.11 presents the compiled details of the rotation sum of squared loadings of components.

TABLE 4 Total Variance Explained

Component	Initial Eigenvalues			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	3.300	21.997	21.997	3.096	20.639	20.639

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2	2.688	17.923	39.920	2.392	15.945	36.584
3	1.930	12.868	52.788	2.008	13.389	49.973
4	1.665	11.099	63.887	1.955	13.033	63.006
5	1.261	8.407	72.294	1.393	9.288	72.294
6	0.965	6.434	78.729			
7	0.639	4.263	82.991			
8	0.590	3.936	86.927			
9	0.496	3.307	90.234			
10	0.421	2.808	93.043			
11	0.295	1.967	95.010			
12	0.261	1.739	96.749			
13	0.184	1.224	97.973			
14	0.170	1.135	99.108			
15	0.134	0.892	100.000			

Extraction Method: Principal Component Analysis.

TABLE 5 Rotation Sum Of Squared Loadings

Factors	**Rotated Eigen values**	**% of Variance**	**Cumulative %**
First Factor	3.096	20.639	20.639
Second Factor	2.392	15.945	36.584
Third Factor	2.008	13.389	49.973
Fourth Factor	1.955	13.033	63.006
Fifth Factor	1.393	9.288	72.294

The rotated Eigen value, a measure of how much a factor explains the variation of the observed variables, is found in Table 5 is second column. Greater variation is explained by any factor with an Eigen value of ≥1 than by a single observed variable. The first factor will always be responsible for the greatest amount of variance, followed by the next factor, which will take care of any remaining variance, and so on. As a result, the variance explained by each new factor will decrease. With Eigen values, one may manually calculate the percentage of variance explained by each factor. The overall variance is equal to 100 because there are 15 variables. Consequently, the variable that each factor explains can be calculated as follows:

Per cent age of variance explained by Factor 1:
Factor 1 = Eigen value of first factor / Sum total of the Eigen value*100

=3.096/15*100
= 20.639

The other factor variance could be computed as from above formula. The total variance explained by both factors is **20.63+15.94+13.38+13.03+9.288 = 72.29%.**

8 Results And Interpretation

The rotated factor matrixes for the variables relating to the factor for Production problems and the loading received by the factors under F1, F2,F3,F4 andF5 are given in Table 5.

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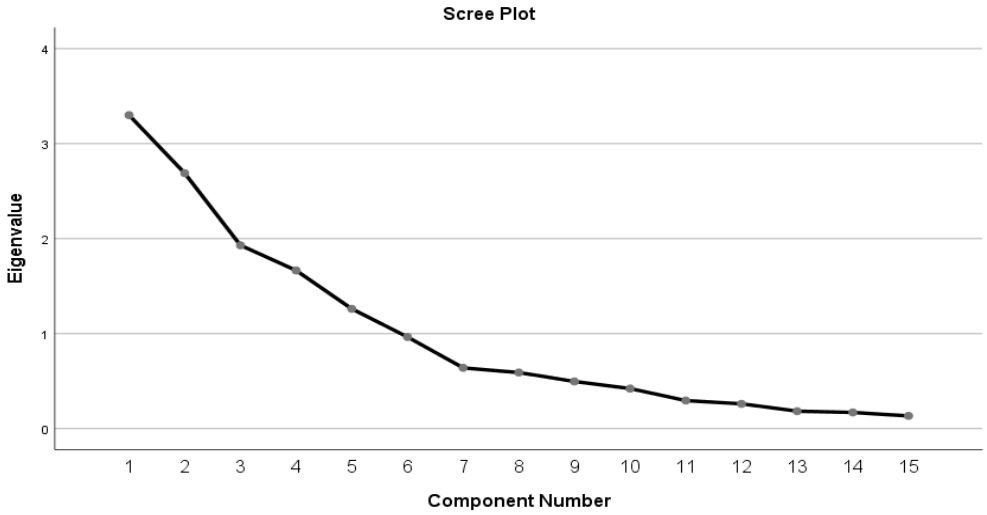

TABLE 6 Rotated Factors Matrix For The Factors Of Production Problems

S. No	Variables	Component				
		Factor 1	**Factor 2**	**Factor 3**	**Factor 4**	**Factor 5**
1	Coir products have more demand in the domestic as well as foreign markets	0.801				
2	Coir products are better for health	0.901				
3	Coir Board helps in marketing the coir products	0.804				
4	Coir products do not affect the environment	0.512				
5	The Government provides subsidy/financial aid to coir industry		0.593			
6	Coir Board helps in purchasing raw materials at cheaper prices		0.778			
7	Coir Board provides training for increasing productivity		0.661			
8	Coir Board conduct the awareness program for coir business			0.905		
9	Coir Board conduct the new entrepreneur's development programs			0.837		
10	Coir products attract the consumers having different levels of income				0.755	
11	Coir products are very attractive				0.652	
12	Coir products are affordable and cheap				0.827	
13	Coir Board helps in receiving loan from bank				0.552	
14	Coir products are durable					0.780
15	Climate condition in this area is suitable for coir industry					0.629

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Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization.

9 Conclusion

Firstly, the study establishes that job satisfaction is crucial for maintaining employee morale in the coir industry. Various factors such as wages, incentives, safety measures, working conditions, and supervision play a role in determining workers' satisfaction. Using a Workers' Satisfaction Scale, the study categorizes workers into three groups: poorly satisfied, moderately satisfied, and highly satisfied. Most workers fall into the poorly satisfied or moderately satisfied categories, indicating room for improvement in overall satisfaction levels. Community background significantly influences workers' satisfaction levels. Scheduled caste workers tend to be more satisfied compared to non-scheduled caste workers. This association is statistically significant. Gender also plays a role in satisfaction levels, with male workers generally reporting higher satisfaction compared to female workers. This gender disparity in satisfaction is statistically significant. Years of experience are positively correlated with satisfaction levels, with workers having more than five years of experience reporting higher satisfaction compared to those with fewer years of experience. This relationship is statistically significant. Basic work status, whether agricultural or industry-based, also affects satisfaction levels. Agricultural workers tend to be more satisfied compared to industry-based workers, indicating a significant association between work status and satisfaction levels. The study identifies various challenges faced by the coir industry in terms of human resources. These include the predominance of female workers, issues with night shifts, seasonal fluctuations in labor supply, difficulties in inculcating industrial work culture, and absenteeism. Resistance to training and reluctance to adopt new roles among workers are also highlighted as major challenges. Overall, the study underscores the importance of addressing workers' satisfaction and addressing the unique challenges faced by the coir industry in managing its human resources effectively. Improving satisfaction levels and addressing workforce challenges are crucial for enhancing productivity and sustainability in the industry.

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