# A Study on Financial Performance of Coir Industry – With Reference to East Godavari District, Andhra Pradesh

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## ABSTRACT

*MSME's plays a vital role in the development of economy in the developing countries like our India. Coir industry is a traditional agro based industry which has a positive influence on growth of Indian economy. Hence this industry has gained its own importance and the Growth of an industry depends upon its performance . Analyzing cost and return, resource use efficiency, returns to scale, problems relating to production in the industry helps to assess the production efficiency of coir industry and thereby indicate efficiency and profitability.*

**Keywords:** Growth, performance, analyzing cost and return.

## INTRODUCTION:

Coir sector is a growth driver in Indian economy by providing huge number of employment opportunities especially in rural areas which ultimately discouraging the urbanisation and helps in reduction of poverty. Coir industry is more significant in coconut cultivating states like Kerala, Karnataka, Tamilnadu, Andhrapradesh etc.. India accounts for more than two-thirds of world production of coir and coir products[1]. It is an important sector with extended scope of exporting the coir products all over the world. Coconut Husk serves as a raw material for extracting coir in the coir industry. The growth of coir industry depends on several factors .Present study deals with the relation between identified factors and profit.

Identification of factors which are influencing the growth of coir fibre and yarn units would help the entrepreneurs to take corrective measures wherever necessary. Therefore, the present study by exposing its potentiality for future growth could be help the industry make an indelible mark in the East Godavari district, Andhra Pradesh.

## REVIEW OF LITERATURE:

Sudhansu Sekhar Nayak, and Bhabasish Mahapatra (2016)[2] in their paper 'growth and performance of coir industry in Odisha stated that in Odisha, coconut is extensively cultivated in the coastal districts like-Puri, Khurda, Cuttack, Balasore and Ganjam, which account for more than 85% of the total production. Privatization of the coir units must be encouraged and more and more financial help should be given to the private units. This will help to a large extent for the development of coir industry in the state. There is a lot more to be done to make the coir industry a modern, sustainable and significant segment of the industrial sector and a major factor in the economy of the country.

C. Basavaiah (2011)[3]in his study stated that the Coir Industry has been significantly export oriented and a valuable foreign exchange earner. India is one among the leading exports of coir in the world. It is estimated that more than 90 per cent of Indian Coir export revenue comes from value added products. The industry set an

[1]Nagaraj, G.,*"Exports of coir and coir products from India: An Analysis",* International Journal of Research in Commerce, Economics & Management, Vol.1, No.6, October 2011
[2]*SudhansuSekharNayak, and BhabasishMahapatra, "*Growth and performance of coir industry in Odisha stated that in Odisha"International Educational Scientific Research Journal, Vol 2, No 4 (2016)
[3] C. Basavaiah, " Export of coir and coir products from India: an analysis" Indian Development Review, Vol. 9, No. 1, (January-June, 2011) : PP.11-18

ambitious target of achieving Rs. 1500 crore worth of exports by 2012. Both in terms of volume and value of coir and coir exports India occupies an importance place. The Central Government and State Governments, Coir Board and NGOs should take necessary steps to increase the coir and coir products exports from India by improving the quality of coir products with International standards, and also conduct export campaign. He viewed that the Coir Board has sought higher allocation in the Indian budget to overcome the prevailing economic slowdown and the resultant impact on coir product exports, and the Board has taken a few steps to achieve that. Among them is the declaration of 2009 as the 'Year of Natural Fibre'

Govindaraju A. (2010)[4]stated that Coir popularly known as the golden fibre, it is a natural fibre extracted from fibrous husk of the coconut shell and is used to make a wide range of products such as ropes, mats, mattresses, baskets, brushes, brooms etc. husks are used as fuel, as surface and seedling pit much and for buying in coconut gardens as fertilizer due to the high due to the most important commercial Utilization of husk is for the manufacture of coir. There are eighteen varieties of coconut palms; but the husks form only three varieties are suitable for coir production.

Christy Fernandez (2003)[5] in his article on "Revitalisation and Cost Management of Small Scale Units through a Consortium approach in the Alleppey Coir Cluster" identified the problems faced by the primary fibre extraction sector— such as high cost of market and. Further he stated that the small producers are at the mercy of middlemen for the supply of raw material and credit as well as for the sale of their products. In this context the author identified the importance and relevance of revitalization and cost management essentials and part of the strategic inputs for revitalizing the small-scale sectors.

R. Ramkumar (2001)[6] in his article "Costs and Margins in Coconut Marketing: Some Evidences from Kerala" which analysing the three marketing channels, observed that Channel III (Producer–Co-operative Society–Kerala Coconut Marketing Federation– Consumer) was the most efficient and cost-effective compared to costs found in Channels II (Producer–Oil miller–Consumer) and Channel I (Producer Copra Maker–Oil Maker– Consumer). He concluded that the presence of the intermediaries in the channels led to a low price realization to the producers.

Jurgen Sweegers (2000)[7] in his working paper "The coir industry in Kerala (India): Theoretical and Empirical aspects of a Traditional Industry in the Wake of Economic Development" while expressing his view on the modernization of coir units, contrary to the common belief, opposed it by citing the following four reasons: (i) The modernization process may turn out to be less efficient or as efficient as the labour intensive method, given the local circumstances in India. (ii) The expected reduction in the labour cost may be offset by gaining of importance of factors working against this change like payment of huge wages to people who are about to operate new machines. (iii) The cost of its introduction may also be too high to make the mechanized units a promising alternative; the process also has an adverse impact on rural employment.

## OBJECTIVES OF THE STUDY:

- To study about the financial performance of the coir industry in the study area.

## METHODOLOGY:

Designing a suitable methodology the selection of analytical tools is important for a meaningful analysis of any 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 described.

### Choice of the Study Area:

The study area of the present research work is East Godavari District, Andhra Pradesh. Though it is predominantly an agricultural district, now, it stands at the significant place in the state in terms of industrial location.

The vast stretches utilizing for coconut cultivation, and the presence of adequate agricultural labors, 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, experiencing a steady increase in coir units over the years due to ready market for the produced coir fibre in the nearby states. It indicates a vast potential for the

[4]Govindaraju A. (2010), "Development of Coir Industry in India", Southern Economist, Vol. 49, No.10, pp. 17-19.
[5]Christy Fernandez, "Revitalisation and Cost Management of Small Scale Units through a Consortium Approach in the Alleppey Coir Cluster", Coir News, Vol.XXXII, No.3, March 2003, pp.17-23.
[6]R. Ramkumar "Costs and Margins in Coconut Marketing: Some Evidence from Kerala", IndianJournal of Agricultural Economics, Vol.56, No.4, October-December 2001, pp. 668-681.
[7]JurgenSweegers in his working paper "The Coir Industry in Kerala (India): Theoretical and Empirical Aspects of a Traditional Industry in the Wake of Economic Development", WorkingPaper, No.68, Centre for Development Studies, Thiruvananthapuram, 2000, pp.1-33.

growth of this industry in the region.

Further, in the district no study or probe has been undertaken so far by any individual researcher or by an institution or a university about coir industry. It sowed the seeds of coir industry in researcher and finally leads to the selection of this district as the study area for research.

**Data Collection Method:**

The study is based on both primary and secondary data. The primary data is collected by canvassing a structured questionnaire through personal interaction among the selected samples and some entrepreneurs filled the questionnaire voluntarily at their houses.

**Secondary Data:**

The secondary data relating to coir in respect of its production export and growth in units and employment in India and other required information were collected from annual reports of the Coir Board, the Coir News Journal, Coir Board magazines and various books written by the Coir Board, Reports published by the State Planning Commission and information down loaded from various websites.

**Sample procedure:**

Purposive sampling method is followed in selection of the respondents. Purposive sampling is a non-probability sampling technique in which judgement is used for selection of the units that are to be studied which considers ease of access .This sampling is also known as judgmental**,** selective or subjective **s**ampling.

The 81 registered coir product units in the district at District industrial centre, Kakinada, East Godavari with longevity of at least 10 years are selected for study.

**Period of Study:**

To collect primary data, field survey was carried out from June 2017 to December 2017.

**DATA ANALYSIS AND TOOLS:**

 For the purpose of analysis and to facilitate interpretation simple statistical tools like percentages, averages, simple growth rate, compound annual growth rates , Hypothesis are tested with Anova technique, Multiple regression analysis, cost benefit analysis, Productivity ratio are used for this study.

**LIMITATIONS OF THE STUDY:**

- The research study is confined to coir units located in East Godavari District only.
- The Sample is drawn from registered MSMEs in the District.
- The study covers period of five years. Considerations of the homogeneity of data over a period of time and the availability of the latest data will be guided the decision regarding the period of time.
- Findings of the study may or may not similar to the rest of the country.

**Table 1: Location of Coir industry in East Godavari District**

| Type of organization | Location |
|---|---|
| Coir industry | Inavalli, Rajole, Katrenikona, Ramachandrapuram, Mamidikuduru, Malkipuram, Rajahmundry, Ambajipeta, Katrenikona, Malkipuram, Amalapuram, Mandapetass, Gannavaram, Rajanagaram, Atreyapuram, Peddapuram, Allavaram, Kakinada®, |

 **Source:** Field Survey December 2017 in the study area

**Table 2: Age Distribution of Respondents**

| Age | Frequency | Percent |
|---|---|---|
| Below 28 years | 1 | 1.2 |
| 28-40 years | 40 | 49.4 |
| 40-50 years | 24 | 29.6 |
| above 50 years | 16 | 19.8 |
| **Total** | **81** | **100** |

**Source:** Field Survey December 2017 in the study area

From the table it is observed that 1.2% of the respondents are below 28 years, 49.4% are between 28 to 40 years, 29.6% are between 40 to 50 years and 19.8% are above 50 years. It is evident from the data that most of the respondents are between 28 to 40 years of age.

**Table 3: Gender Distribution of Respondents**

|  | Frequency | Percent |
|---|---|---|
| Male | 60 | 74.1 |
| Female | 21 | 25.9 |
| **Total** | **81** | **100** |

**Source:** Field Survey December 2017 in the study area

From the table it can be observed that 74.1% of the respondents are males and 25.9% of the respondents are females. It is evident from the table that most of the respondents are males.

**Table 4: Education Qualification Distribution of Respondents**

|  | Frequency | Percent |
|---|---|---|
| Primary Education | 30 | 37 |
| SSC | 12 | 14.8 |
| Intermediate | 3 | 3.7 |
| Graduate and above | 36 | 44.4 |
| **Total** | **81** | **100** |

**Source:** Field Survey December 2017 in the study area

From the table it is observed that 37% of the respondents have completed primary education, 14.8% of respondents are have completed SSC, 3.7% have completed Intermediate and 44.4% are graduates and above. From the table it is evident that most of the respondents are having primary education or have completed graduation and above.

**Table 5: Nature of Products of coir units in the study area**

| S.NO | Nature of product | Number | Percent |
|---|---|---|---|
| 1 | Coir Yarn | 48 | 59.26 |
| 2 | Fiber | 33 | 40.74 |
| 3 | Others | 0 | 0.0 |
|  | **Total** | **81** | **100.0** |

**Source:** Field Survey December 2017 in the study area

**Table 6: Capital Distribution on different types of units**

|  | capital invested on unit |  |  |  |  |
|---|---|---|---|---|---|
|  | **Below20 lakhs** | **20-40 lakhs** | **40-60 lakhs** | **above 60 lakhs** | **Total** |
| Fibre | 13 | 13 | 3 | 4 | 33 |
|  | 39.40% | 39.40% | 9.10% | 12.10% | 100.00% |
|  | **Below 2 Lakhs** | **2-5 Lakhs** | **5-10 Lakhs** | **Above 10 Lakhs** |  |
| Yarn | 4 | 20 | 24 | 0 | 48 |
|  | 8.30% | 41.70% | 50.00% | 0.00% | 100.00% |
|  | 17 | 33 | 27 | 4 | 81 |
|  | 21.00% | 40.70% | 33.30% | 4.90% | 100.00% |

**Source:** Field Survey December 2017 in the study area

From the table it is observed that in Fiber units 39.4% units invested below 20 lakhs, 39.4% invested between 20 to 40 lakhs, 9.1% invested between 40 to 60 lakhs and 12.1% invested above 60 lakhs. It is evident from the data that most of the investments are between 20 to 40 lakhs or below 20 lakhs. In Yarn units 8.3% invested below 2 lakhs, 41.7% invested between 2 to 5 lakhs and 50% invested between 5 to 10 lakhs.

### Table 7: Production output Distribution on different types of units

|  | Below 25 tonnes | 25 to 35 tonnes | 35 to 45 tonnes | above 45 tonnes |  |
|---|---|---|---|---|---|
| Fiber | 6 | 13 | 8 | 6 | 33 |
|  | 18.20% | 39.40% | 24.20% | 18.20% | 100.00% |
|  | **Below 1 Tonne** | **1 to 2 tonnes** | **2 to 3 tonnes** | **above 3 tonnes** |  |
| Yarn | 8 | 16 | 10 | 14 | 48 |
|  | 16.70% | 33.30% | 20.80% | 29.20% | 100.00% |
|  | 14 | 29 | 18 | 20 | 81 |
|  | 17.30% | 35.80% | 22.20% | 24.70% | 100.00% |

**Source:** Field Survey December 2017 in the study area

From the table it can be observed that in fiber units 18.2% have production below 25 tons, 39.4% have between 25 to 35 tons, 24.2% have between 35 to 45 tons and 18.2% have above 45 tons. In Yarn units 16.7% have production below 1 ton, 33.3% have between 1 and 2 tons, 20.8% have between 2 to 3 tons and 29.2% have above 3 tons. It is observed that the production in Fiber units is more than the Yarn units.

### Table 8: Average Rate of profit Distribution on different types of units

|  | Less than 5% | 5% to 10% | 10% to 15% | Above 15% |  |
|---|---|---|---|---|---|
| Fiber | 5 | 17 | 8 | 3 | 33 |
|  | 15.20% | 51.50% | 24.20% | 9.10% | 100.00% |
| Yarn | 1 | 26 | 12 | 9 | 48 |
|  | 2.10% | 54.20% | 25.00% | 18.80% | 100.00% |
|  | 6 | 43 | 20 | 12 | 81 |
|  | 7.40% | 53.10% | 24.70% | 14.80% | 100.00% |

**Source:** Field Survey December 2017 in the study area

From the table it is clear that in Fiber units 15.2% are having less than 5% profits, 51.5% are having profits between 5% to 10%, 24.2% are having profits between 10% to 15% and 9.1% are having profits above 15%. In yarn units 2.1% are having profits below 5%, 54.2% are having profits between 5% and 10%, 25% are having profits between 10% and 15% and 18.8% are having profits above 15%. It is evident that most of the units are having profits between 5% and 10%.

### Table 9: Average Monthly Revenue Distribution on different types of units

|  | Between 2to4 lakhs | Between 4to6 lakhs | above 6 lakhs |  |
|---|---|---|---|---|
| Fiber | 20 | 10 | 3 | 33 |
|  | 60.60% | 30.30% | 9.10% | 100.00% |
|  | **Between 25 to 50 thousands** | **Between 50 thousand to 1 lakhs** | **Above 1 lakh** |  |
| Yarn | 13 | 11 | 24 | 48 |
|  | 27.10% | 22.90% | 50.00% | 100.00% |
|  | 33 | 21 | 27 | 81 |
|  | 40.70% | 25.90% | 33.30% | 100.00% |

**Source:** Field Survey December 2017 in the study area

From the table it is observed that in fiber units 60.6% are having average revenue between 2 to 4 lakhs, 30.3% are having average revenue between 4 to 6 lakhs and 9.1% are having average revenue above 6 lakhs. In yarn units 27.1% are having average revenue between 25 to 50 thousands, 22.9% are having average revenue between 50 thousand to 1 lakh and 50% are having average revenue above 1 lakh. It is evident from the data that in fiber units most of the units are having average revenue between 2 to 4 lakhs. In yarn units most of the units are having average revenue above 1 lakh.

**PERFORMANCE OF COIR UNITS:**

An attempt has made to identify the performance of the selected coir units in the study area by testing the significant difference in the variables using ANOVA technique is as follows. The performance of coir fibre units

and yarn units studied separately to brought out the significant results.

**Investment and output of coir fiber units:**
Funds required to acquire fixed assets are termed as fixed capital. It is invested on items like land, building, machinery, furniture and fixtures and vehicles. The fixed capital requirements vary from one unit to another and generally are influenced by the scale of operation. Out of 33 coir fibre units, the owners of the 19 coir units operate their units in their own land and have constructed their own buildings to run such units and 14 fibre units are running in leased land.

A reasonable amount of funds are required for purchasing vehicles for transporting the husk the factory, disposing of the coir dust and transporting workers from nearby villages to work sites. Details on investment pattern of fixed capital to the coir units located the study area is presented in

**Table 10: Range of output of coir fiber units by investment level**

| Year | Output of coir fiber units by investment (in tonnes -per month) | | | | |
|---|---|---|---|---|---|
| | Investment Rs. Below 20 lakh (N=13 ) | Investment Rs. 20-40 lakh (N=13 ) | Investment Rs. 40-60 lakh (N=3) | Investment Rs. above 60 lakh (N=4 ) | Total N=33 |
| | CF1 | CF2 | CF3 | CF4 | |
| 2012-13 | 345 | 452 | 140 | 209 | 1146 |
| 2013-14 | 339 | 465 | 143 | 215 | 1162 |
| 2014-15 | 310 | 394 | 97 | 173 | 974 |
| 2015-16 | 347 | 460 | 145 | 211 | 1163 |
| 2016-17 | 353 | 466 | 151 | 223 | 1193 |
| Mean | 338.8 | 447.4 | 135.2 | 206.2 | 1128 |
| SD | 16.86 | 30.36 | 21.73 | 19.32 | 87.53 |
| CV (%) | 4.98 | 6.79 | 16.07 | 9.37 | 4.98 |
| ACGR | 0.57 | 0.77 | 1.91 | 1.63 | 1.01 |

**Source:** Computed values of Field Study December 2017

Table 10. The investment level of coir units are classified in to Rs. below 20 Lakhs (13 units) named as CF1, Rs. 20-40 Lakhs (13 units) named as CF2, Rs.40-60 Lakhs (3 units) called as CF3and Rs. above 60 Lakhs (4 units) named as CF4.

It is evident from the table that the total output of coir fiber units is fluctuated. It is varied from 974 tonnes in 2014-15 to 1146 tonnes in 2012-13 and 1193 tonnes in 2016-17. The mean production was 1128tonnes and the average annual compound growth rate (AGR) of the production was 1.01 per cent. The coefficient of variation (CV) is recorded at 4.98 per cent during the study.

**Testing of hypothesis:**
**Ho1:** There is no significant variance in range of investment and output among coir fibre units
**Ha1:** There is a significant variance in range of investment and output among coir fibre units

**Table 11: ANOVA results on difference in investment range and output of coir fiber units**

| Source of Variation | SS | df | MS | F | P-value | F crit |
|---|---|---|---|---|---|---|
| Between Groups | 289396.2 | 3 | 96465.4 | 188.0967144 | 1.10143E-12 | 3.238872 |
| Within Groups | 8205.6 | 16 | 512.85 | | | |
| Total | 297601.8 | 19 | | | | |

**Source:** Computed values of Field Study December 2017

Table 11 explains the ANOVA results on variance in range of investment and output of coir fiber units during the study period with p value at $p< 0.05$. The result of P-value is recorded as 1.10 which is greater than 0.05. Thus, the null hypothesis "There is no significant variance in range of investment and output among coir fibre units" is accepted.

**Investment and Revenue of coir fiber units:**

Revenue of coir fibre is the dependent variable on the quantity of output and the cost of production. The present study assumed the cost of production (expenditure) is constant. Therefore, range of revenue of coir fiber units by investment estimated progressively in the study period.

**Table 12: Range of revenue of coir fiber units by investment level**

| Year | Range of revenue of coir fiber( Rs. per month) | | | | |
| | Investment Rs. Below 20 lakh (N=13 ) | Investment Rs. 20-40 lakh (N=13 ) | Investment Rs. 40-60 lakh (N=3) | Investment Rs. above 60 lakh (N=4 ) | Total N=33 |
| | CF1 | CF2 | CF3 | CF4 | |
| 2012-13 | 1897500 | 2486000 | 770000 | 1149500 | 6303000 |
| 2013-14 | 2034000 | 2790000 | 858000 | 1290000 | 6972000 |
| 2014-15 | 2015000 | 2561000 | 630500 | 1124500 | 6331000 |
| 2015-16 | 2602500 | 3450000 | 1087500 | 1582500 | 8722500 |
| 2016-17 | 3530000 | 4660000 | 1510000 | 2230000 | 11930000 |
| Mean | 2415800 | 3189400 | 971200 | 1475300 | 8051700 |
| SD | 680320.8 | 905504.72 | 343948.9 | 459512.3 | 2380950 |
| CV | 28.16 | 28.39 | 35.41 | 31.15 | 29.57 |
| CGR | 16.79 | 17.01 | 18.34 | 18.02 | 17.29 |

**Source:** Computed values of Field Study December 2017

Table 12 explains that the revenue of the coir fibre units is fluctuated during 2012-13 to 2016-17. The revenue is varied from Rs. 63.03 lakh in 2012-13 to Rs. 119.30 lakh in 2016-17. The mean revenue is Rs.80.52lakh. The CGR is during the study period is recorded by 17.29 % and CV is 29.57% respectively according to the study.

**Testing of hypothesis**

**Ho2:** There is no difference in attaining the revenue among the coir fibre units in the study area
**Ha2:** There is a difference in attaining the revenue among the coir fibre units in the study area

**Table 13: ANOVA results on revenue differences among the coir fibre units in the study area**

| ANOVA | | | | | | |
| Source of Variation | SS | df | MS | F | P-value | F crit |
| Between Groups | 1.46E+13 | 3 | 4.87E+12 | | | |
| Within Groups | 6.45E+12 | 16 | 4.03E+11 | 12.07701 | 0.000221 | 3.238872 |
| Total | 2.11E+13 | 19 | | | | |

**Source:** Computed values of Field Study December 2017

Table 13 depicts the ANOVA results on revenue differences among the coir fibre units in the study area during 2012-13 to 2015-16 in the study area with p value at $p< 0.05$. It is found from the table that the result of P-value is recorded at 0.000221 which is less than 0.05. Thus, the null hypothesis (Ho2) "There are no differences in revenue among the coir fibre units in the study area" is rejected at 5 per cent level of significance.

**Expenditure pattern of coir fiber units:**

Expenditure refers to the amount incurred or value of resources sacrificed either to manufacture a product or to render a service. The cost of production means the total expenditure incurred in manufacturing a product and becomes the preponderant portion of the total cost. It includes the cost of raw material, labour and manufacturing overheads. The cost of production being a parameter in determining the production efficiency of an industry its analysis is of vital importance.

**Table 14: Range of expenditure of coir fiber units by investment**

| Year | Range of expenditure (per month) | | | | |
|---|---|---|---|---|---|
| | Investment Rs. Below 20 lakh (N=13 ) | Investment Rs. 20-40 lakh (N=13 ) | Investment Rs. 40-60 lakh (N=3) | investment Rs. above 60 lakh (N=4 ) | Total N=33 |
| | CF1 | CF2 | CF3 | CF4 | |
| 2012-13 | 1607700 | 2106320 | 652400 | 973940 | 5340360 |
| 2013-14 | 1759410 | 2413350 | 742170 | 1115850 | 6030780 |
| 2014-15 | 1801100 | 2289140 | 563570 | 1005130 | 5658940 |
| 2015-16 | 2293670 | 3040600 | 958450 | 1394710 | 7687430 |
| 2016-17 | 2869890 | 3788580 | 1227630 | 1812990 | 9699090 |
| Mean | 2066354 | 2727598 | 828844 | 1260524 | 6883320 |
| SD | 517754.88 | 689317.89 | 266853.5 | 350539.4 | 1815338.12 |
| CV | 25.06 | 25.27 | 32.20 | 27.81 | 26.37 |
| CGR | 15.59 | 15.81 | 17.12 | 16.81 | 16.09 |

**Source:** Computed values of Field Study December 2017

Table 14 at the aggregate, the expenditure of the coir fibre units is fluctuated during 2012-13 to 2016-17. The expenditure is varied from Rs. 53.40 lakh in 2012-13 to Rs. 96.99 lakh in 2016-17. The mean revenue per month is Rs. 68.83lakh. The CGR is during the study period is recorded by 16.09 % and CV is 26.37% respectively according to the study.

**Testing of hypothesis:**
**Ho3:** There is no difference in pattern of expenditure among the coir fibre units in the study area
**Ha3:** There is a difference in pattern of expenditure among the coir fibre units in the study area

**Table 15: ANOVA results on expenditure difference among the coir fiber units in the study area**

| ANOVA:Expenditure difference | | | | | | |
|---|---|---|---|---|---|---|
| Source of Variation | SS | df | MS | F | P-value | F crit |
| Between Groups | 1.07E+13 | 3 | 3.57E+12 | 15.22421 | 6.01E-05 | 3.238872 |
| Within Groups | 3.75E+12 | 16 | 2.34E+11 | | | |
| **Total** | **1.45E+13** | **19** | | | | |

**Source:** Computed values of Field Study December 2017

Table 15 explains the ANOVA results on expenditure differences among the coir fibre units in the study area during 2012-13 to 2016-17 in the study area with p value at $p< 0.05$. It is found from the table that the result of P-value is recorded more than 6.01 which is greater than 0.05. Thus, the null hypothesis (Ho3) "There are no differences in expenditure among the coir fibre units in the study area" is accepted.

**Input output ratio analysis of coir fibre units:**
The term "Input-Output Ratio (IOR)" is used in connection with measurement of productivity of material, labour, capital etc. However, with reference to materials, this ratio implies a relation between the quantity of material issued to production and the quantity of material obtained in the form of finished product. This ratio serves as a useful yardstick for controlling cost of materials. Higher the ratio, lower is the productivity. The ratio is computed by dividing the total input by the total output. It can be expressed in the form of a percentage thus:

$$\text{Input Output Ratio} = \frac{\text{Input units}}{\text{Output units}} \text{ x } 100$$

Expenditure is considered as input which reflects real cost of inputs and revenue is taken as output of the coir fibre units with a view to real reflector of output value.

**Table 16: Input output ratio of coir fibre units**

| Year | Input output ratio analysis | | | | Total N=33 |
|---|---|---|---|---|---|
| | Investment Rs. Below 20 lakh (N=13 ) | Investment Rs. 20-40 lakh (N=13 ) | Investment Rs. 40-60 lakh (N=3) | Investment Rs. above 60 lakh (N=4 ) | |
| | CF1 | CF2 | CF3 | CF4 | |
| 2012-13 | 1:1.17 | 1: 1.14 | 1:1.11 | 1:1.13 | 1:1.11 |
| 2013-14 | 1:1.16 | 1:1.18 | 1:1.11 | 1:1.14 | 1:1.15 |
| 2014-15 | 1:1.14 | 1:1.17 | 1:1.19 | 1:1.13 | 1:1.14 |
| 2015-16 | 1:1.10 | 1:1.14 | 1:1.15 | 1:1.16 | 1:1.13 |
| 2016-17 | 1:1.31 | 1:1.14 | 1:1.31 | 1:1.54 | 1:1.23 |

**Source:** Computed values of Field Study December 2017

Table 16 discloses the input output ratio of coir fibre units in the stud area. The value of IOR is varied from 1:1.11 in 2012-13 to 1:1.23 in 2016-17. Among the coir units, the IOR is recorded by1: 1.10 to 1:1.54. Thus, the IOR of all the coir units is showing linearity at some extent.

**Cost-benefit analysis of fibre units:**
Analysing cost and returns, resource-use efficiency, returns to scale and problems relating to production in the industry helps to assess the production efficiency of coir units and thereby indicates efficiency and profitability on their scale of operations.

**Table 17: Cost-benefit statement of selected fibre units by investment**

| Year | Profit/loss of fibre units per month (RS.) | | | | Total N=33 |
|---|---|---|---|---|---|
| | Investment Rs. Below 20 lakh (N=13 ) | Investment Rs. 20-40 lakh (N=13 ) | Investment Rs. 40-60 lakh (N=3) | Investment Rs. above 60 lakh (N=4 ) | |
| 2012-13 | 289800 | 379680 | 117600 | 175560 | 962640 |
| 2013-14 | 274590 | 376650 | 115830 | 174150 | 941220 |
| 2014-15 | 213900 | 271860 | 66930 | 119370 | 672060 |
| 2015-16 | 308830 | 409400 | 129050 | 187790 | 1035070 |
| 2016-17 | 660110 | 871420 | 282370 | 417010 | 2230910 |
| Mean | 349446 | 461802 | 142356 | 214776 | 1168380 |
| SD | 177267.85 | 234843.42 | 81832.97 | 116100.72 | 609714.22 |
| CV | 50.73 | 50.85 | 57.48 | 54.06 | 52.18 |
| CGR | 22.85 | 23.08 | 24.48 | 24.15 | 23.38 |

**Source:** Computed values of Field Study December 2017

Net cost-benefit statement of selected fibre units by investment range in the study area were worked out and presented in Table 17. It is found from the table that all the coir fibre units are getting profits during the study period. The net returns (profits) of the coir fibre units are fluctuated during 2012-13 to 2016-17. The expenditure is varied from Rs. 9.62 lakh in 2012-13 to Rs. 22.31 lakh in 2016-17. The mean profit per month is Rs. 11.68 lakh. The mean CGR is recorded by 23.38 %for profit gaining in the study period as recorded CV by 52.18% respectively according to the study.

**Testing of hypothesis:**
**Ho4:** There is no difference in gaining profits among the Fibre units in the study area
**Ha4:** There is a difference in gaining profits among the Fibre units in the study area

**Table 18: ANOVA results on differences in profit gaining among the coir fibre units**

| Source of Variation | SS | df | MS | F | P-value | F crit |
|---|---|---|---|---|---|---|
| Between Groups | 3.02448E+11 | 3 | 1.01E+11 | 3.777601 | 0.031824 | 3.238872 |
| Within Groups | 4.27005E+11 | 16 | 2.67E+10 | | | |
| **Total** | **7.29453E+11** | **19** | | | | |

**Source:** Computed values of Field Study 2016-17

Table 18 explains ANOVA results on differences in profits among the coir fibre units in the study area with p value at p< 0.05. It is found from the table that the result of P-value is recorded as 0.03 at p < 0.05. Thus, the null hypothesis (Ho3) "There is no difference in gaining profits among the Fibre units in the study area" is rejected the at 5 per cent level of significance.

**Performance of Yarn Units:**
**Range of investment and output of Yarn units:**
Details on investment pattern of the fixed capital for the coir yarn units are presented in Tables 19 The selected yarn units are categorized on the basis of investment level as: Rs. below 2 Lakhs (4 units) is named as CY1, Rs. 2-5 Lakhs (20 units) named as CY 2, Rs.5-10 Lakhs (24 units) called CY 3 and Rs. above 10 Lakhs (0 units) called CY4.Out of 48 coir fibre units, 45 coir units are operating in own land and 3 are functioning in leased land.

**Table 19: Range of investment and output of Yarn units by investment level**

| Year | Yarn Output in tonnes per month | | | | |
|---|---|---|---|---|---|
| | Investment Rs. below 2 Lakh (N=4) | Investment Rs. 2-5 Lakhs (N=20) | Investment Rs.5-10 Lakhs (N=24) | Investment Rs. above 10 Lakhs (N=0) | Total N=48 |
| 2012-13 | 3.2 | 27 | 74 | 0 | 104.2 |
| 2013-14 | 3.3 | 30 | 76 | 0 | 109.3 |
| 2014-15 | 3.6 | 30 | 77 | 0 | 110.6 |
| 2015-16 | 3.6 | 30 | 77 | 0 | 110.6 |
| 2016-17 | 3.6 | 30 | 77 | 0 | 110.6 |
| Mean | 3.46 | 29.4 | 76.2 | 0 | 109.06 |
| SD | 0.194936 | 1.341641 | 1.30384 | 0 | 2.774527 |
| CV | 5.63 | 4.56 | 1.71 | 0.0 | 2.54 |
| CGR | 2.99 | 2.67 | 1.00 | 0 | 1.50 |

**Source:** Computed values of Field Study December 2017

Table 19 depicts that during 2012-13 to 2016-17, the total output of the yarn units was fluctuated. It was varied from 104.2 tonnes in 2012-13 to 110.6 tonnes per month during 2014-15 to 2016-17. The mean production was 109.6 tonnes and the average annual compound growth rate (AGR) of the yarn production was 1.50 per cent. The coefficient of variation (CV) is recorded at 2.54 per cent during the study.

**Testing of hypothesis**
**Ho5:** There is no significant variance in range of investment and output among Yarn units
**Ha5:** There is significant variance in range of investment and output among Yarn units

**Table 20: ANOVA results on significance variance in range of investment and output among Yarn units**

| Source of Variation | SS | df | MS | F | P-value | F crit |
|---|---|---|---|---|---|---|
| Between Groups | 13590.39 | 2 | 6795.193 | 5761.893 | 1.2671E-18 | 3.885293835 |
| Within Groups | 14.152 | 12 | 1.179333 | | | |
| Total | 13604.54 | 14 | | | | |

**Source:** Computed values of Field Study 2016-17

Table 4.34 explains the ANOVA results on variance in range of investment and output among yarn units during the study period with p value at p< 0.05. It is found that the result of P-value is recorded by 1.27 which is greater than 0.05. Thus, the null hypothesis "There is no significant variance in range of investment and output among yarn units" is accepted.

**Range of revenue of Yarn units by investment level:**
Revenue of yarn units by their investment level is presented in table 21. Obviously, the revenue of the yarn units during 2012-13 to 2016-17 is found an increasing trend. The revenue is varied from Rs.885700 in 2012-13 to Rs. 1437800 in 2016-17. The mean revenue is Rs.1121690. The CGR is during the study period is recorded by 12.88% and CV is 19.58% respectively according to the study.

### Table 21: Range of revenue of yarn units by investment level

| Year | Range of revenue of yarn (per month) | | | | |
| | Investment Rs.below 2 Lakh (N=4) | Investment Rs. 2-5 Lakhs (N=20) | Investment Rs.5-10 Lakhs (N=24) | Investment Rs. above 10 Lakhs (N=0) | Total N=48 |
|---|---|---|---|---|---|
| 2012-13 | 27200 | 229500 | 629000 | 0 | 885700 |
| 2013-14 | 31350 | 285000 | 722000 | 0 | 1038350 |
| 2014-15 | 30000 | 250000 | 720000 | 0 | 1000000 |
| 2015-16 | 39100 | 333500 | 874000 | 0 | 1246600 |
| 2016-17 | 46800 | 390000 | 1001000 | 0 | 1437800 |
| Mean | 34890 | 297600 | 789200 | 0 | 1121690 |
| SD | 7986.739 | 64978.27 | 147494.7 | 0 | 219643.7 |
| CV | 22.89 | 21.83 | 18.69 | 0.0 | 19.58 |
| CGR | 14.53 | 14.17 | 12.32 | 0 | 12.88 |

**Source:** Computed values of Field Study December 2017

**Testing of hypothesis:**
**Ho6:** There is no difference in gaining of revenue among the yarn units in the study area
**Ha6:** There is a difference in gaining of revenue among the yarn units in the study area

### Table 22: ANOVA results on significance difference in gaining of revenue among the yarn units

| Source of Variation | SS | df | MS | F | P-value | F crit |
|---|---|---|---|---|---|---|
| Between Groups | 1.47E+12 | 2 | 7.33E+11 | 84.45164 | 8.52E-08 | 3.885294 |
| Within Groups | 1.04E+11 | 12 | 8.68E+09 | | | |
| **Total** | **1.57E+12** | **14** | | | | |

**Source:** Computed values of Field Study December 2017

Table 22 depicts the ANOVA results on significance difference in gaining of revenue among the yarn units in the study area with p value at $p< 0.05$. The results show that the result of P-value is recorded by more than 8.5 which is greater than 0.05. Thus, the null hypothesis (Ho6) is accepted at 5 per cent level of significance.

**Expenditure of Yarn units by investment level:**
Expenditure of yarn units by investment range is discussed in table 4.37. The expenditure per month of the yarn units is varied from Rs. 735652 in 2012-13 to Rs. 1169042 in 2016-17.

### Table 23: Range of expenditure of Yarn units by investment

| Year | Range of Expenditure of yarn(per month) | | | | |
| | Investment Rs. below 2 Lakh (N=4) | Investment Rs. 2-5 Lakhs (N=20) | Investment Rs.5-10 Lakhs (N=24) | Investment Rs.above 10 Lakhs (N=0) | Total N=48 |
|---|---|---|---|---|---|
| 2012-13 | 22592 | 190620 | 522440 | 0 | 735652 |
| 2013-14 | 27027 | 245700 | 622440 | 0 | 895167 |
| 2014-15 | 28650 | 238750 | 687600 | 0 | 955000 |
| 2015-16 | 34646 | 295510 | 774440 | 0 | 1104596 |
| 2016-17 | 38052 | 317100 | 813890 | 0 | 1169042 |
| Mean | 30193.4 | 257536 | 684162 | 0 | 971891.4 |
| SD | 6159.80 | 49901.53 | 117212.31 | 0.0 | 172090.003 |
| CV | 20.40 | 19.38 | 17.13 | 0.0 | 17.71 |
| CGR | 13.92 | 13.57 | 11.72 | 0.0 | 12.28 |

**Source:** Computed values of Field Study December 2017

Table 23 infers that the average revenue is Rs.971891.4. The CGR is 12.28 % and CV is 17.71%. The similar trend is registered in case of all the units. The expenditure per month of the CY1 is registered as an increasing trend and varied from Rs. 22592 in 2012-13 to Rs. 38052 in 2016-17.

**Testing of hypothesis**

**Ho7:** There is no difference in expenditure among the yarn units in the study area

**Ha7:** There is difference in expenditure among the yarn units in the study area

**Table 24: ANOVA results on significance differences in gaining of revenue among the yarn units**

| ANOVA | | | | | | |
|---|---|---|---|---|---|---|
| **Source of Variation** | **SS** | **df** | **MS** | **F** | **P-value** | **F crit** |
| Between Groups | 1.49585E+12 | 3 | 4.99E+11 | | | |
| Within Groups | 65067324895 | 16 | 4.07E+09 | 122.609 | 2.9867-11 | 3.23872 |
| Total | 1.56092E+12 | 19 | | | | |

**Source:** Computed values of Field Study December 2017

Table 24 explains the ANOVA results on difference in expenditure among the yarn units during 2012-13 to 2016-17 in the study area with p value at $p< 0.05$. The result of P-value is recorded by 2.87 which are more than 0.05. Thus, the null hypothesis (Ho7) "is accepted.

**Input output ratio analysis of yarn product units:**

**Table 25: Input output ratio analysis of yarn product units**

| Year | Input output ratio analysisof yarn product units | | | | |
|---|---|---|---|---|---|
| | **Investment Rs. below 2 Lakh (N=4)** | **Investment Rs. 2-5 Lakhs (N=20)** | **Investment Rs. 5-10 Lakhs (N=24)** | **Investment Rs. above 10 Lakhs (N=0)** | **Total N=33** |
| | **CY1** | **CY2** | **CY3** | **CY4** | |
| 2012-13 | 1:1.20 | 1:1.23 | 1:1.31 | 0.0 | 1.33 |
| 2013-14 | 1:1.16 | 1:1.21 | 1:1.26 | 0.0 | 1.31 |
| 2014-15 | 1.05 | 1:1.31 | 1:1.25 | 0.0 | 1.30 |
| 2015-16 | 1.13 | 1:1.42 | 1:1.32 | 0.0 | 1.34 |
| 2016-17 | 1:1.23 | 1:1.43 | 1:1.36 | 0.0 | 1.35 |

**Source:** Computed values of Field Study December 2017

Table 25 explains the input output ratio of yarn units in the stud area. The value of IOR of all yarn units are fluctuated and increased from 1:1.31 in 2013-14 to 1:1.35 in 2016-17. The IOR of all the yarn units are showing linearity at some extent also.

**Cost benefit analysis of yarn units:**

**Table 26: Cost-benefit statement of selected Yarn units by investment level**

| Year | Profit/loss of Yarn units (RS.per month) | | | | |
|---|---|---|---|---|---|
| | **Investment Rs. below 2 Lakh (N=4)** | **Investment Rs. 2-5 Lakhs (N=20)** | **Investment Rs.5-10 Lakhs (N=24)** | **Investment Rs.above 10 Lakhs (N=0)** | **Total N=48** |
| | **CY1** | **CY2** | **CY3** | **CY4** | |
| 2012-13 | 4608 | 38880 | 106560 | 0 | 150048 |
| 2013-14 | 4323 | 39300 | 99560 | 0 | 143183 |
| 2014-15 | 1350 | 11250 | 32400 | 0 | 45000 |
| 2015-16 | 4454 | 37990 | 99560 | 0 | 142004 |
| 2016-17 | 8748 | 72900 | 187110 | 0 | 268758 |
| Mean | 4696.6 | 40064 | 105038 | 0 | 149798.6 |
| SD | 2637.23 | 21878.85 | 54941.85 | 0 | 79433.41 |
| CV | 56.15 | 54.61 | 52.31 | 0 | 53.03 |
| CGR | 17.38 | 17.02 | 15.11 | 0.0 | 15.69 |

**Source:** Computed values of Field Study December 2017

Table 26 explains the net cost-benefit statement of selected yarn units by range of investment in the study area. The net returns (profits) of the yarn units are fluctuated during 2012-13 to 2016-17.The mean profits per month are varied from Rs. 45000 to Rs. 268758 in 2016-17. The CGR is recorded by 15.69 % due to high fluctuations in profit gaining in the study period as recorded CV by 53.03% respectively according to the study.

**Testing of hypothesis:**
**Ho8:** There is no difference in gaining profits among the yarn units in the study area
**Ha8:** There is difference in gaining profits among the yarn units in the study area

**Table 27: ANOVA results on significance differences in gaining of profits among the yarn units**

| ANOVA | | | | | | |
|---|---|---|---|---|---|---|
| Source of Variation | SS | df | MS | F | P-value | F crit |
| Between Groups | 2.59E+10 | 2 | 1.3E+10 | 11.08717 | 0.001875 | 3.885294 |
| Within Groups | 1.4E+10 | 12 | 1.17E+09 | | | |
| Total | 3.99E+10 | 14 | | | | |

**Source:** Computed values of Field Study December 2017

Table 4.41 explains ANOVA results on differences in gaining profits among the yarn units in the study area with p value at $p< 0.05$. It is found that the P-value is recorded at 0.001 which is $< 0.05$. Thus, the null hypothesis (Ho7) "There is no difference in gaining profits among the yarn units" is rejected the at 5 per cent level of significance.

**Financial performance between coir fibre and yarn units:**
An attempt is made to find out the profit earnings of coir fibre and yarn units in the study area. It gives inter relationship and variance in profit gaining between both units. In this regard, average profit earnings during the study period is considered and tested with ANOVA model.

**Table 28: Financial performance between coir fibre and yarn units**

| Year | Profit/loss of fibre units per month (RS.) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | (N=13 ) | (N=13 ) | (N=3) | (N=4 ) | (N=4) | (N=20) | (N=24) | (N=81) |
| | CF1 | CF2 | CF3 | CF4 | CY1 | CY2 | CY3 | Total |
| 2012-13 | 289800 | 379680 | 117600 | 175560 | 4608 | 38880 | 106560 | 1112688 |
| 2013-14 | 274590 | 376650 | 115830 | 174150 | 4323 | 39300 | 99560 | 1084403 |
| 2014-15 | 213900 | 271860 | 66930 | 119370 | 1350 | 11250 | 32400 | 717060 |
| 2015-16 | 308830 | 409400 | 129050 | 187790 | 4454 | 37990 | 99560 | 1177074 |
| 2016-17 | 660110 | 871420 | 282370 | 417010 | 8748 | 72900 | 187110 | 2499668 |
| Mean | 349446 | 461802 | 142356 | 214776 | 4696.6 | 40064 | 105038 | 6590893 |
| SD | 177267.9 | 234843.4 | 81832.97 | 116100.7 | 2637.23 | 21878.85 | 54941.85 | 684479.4919 |
| CV | 50.73 | 50.85 | 57.48 | 54.06 | 56.15 | 54.61 | 52.31 | 10.38523144 |
| CGR | 22.85 | 23.08 | 24.48 | 24.15 | 17.38 | 17.02 | 15.11 | 22.427 |

**Testing of hypothesis:**
**Ho9:** There is no difference in financial performance between coir fibre and yarn product units
**Ha9:** There is difference in financial performance between coir fibre and yarn product units

**Table 29: ANOVA results on financial performance between coir fibre and yarn product units**

| Source of Variation | SS | df | MS | F | P-value | F crit |
|---|---|---|---|---|---|---|
| Between Groups | 8.31E+11 | 6 | 1.38E+11 | 8.7931998 | 1.9933E-05 | 2.445259 |
| Within Groups | 4.41E+11 | 28 | 1.58E+10 | | | |
| Total | 1.27E+12 | 34 | | | | |

**Source:** Computed values of Field Study December 2017

The results of ANOVA test on financial performance between coir fibre and yarn units with p value at $p< 0.05$ show that the P-value is recorded as 1.99 which is greater than 0.05. Thus, the null hypothesis "There is no difference in financial performance between coir fibre and yarn product units" is accepted the at 5 per cent level of significance.

**Factors influencing profit:**

Profit maximisation is the primary objective of a business .It can be achieved by the proper planning in allocation of resources and imparting the innovative methods in effective utilisations of available resources. Profit of a firm can be influenced by so many independent variables.

The relation between dependent variable and independent variable can be explained by multiple regression technique. The factors (independent Variables) influencing profit (dependent variable) of coir units in the study are identified and are listed below.

1. Cost of Raw Material
2. Cost of Power and fuel
3. Wages & Salaries
4. Rent
5. Interest on capital
6. Repairs
7. Miscellaneous expenses
8. Out Put /month in Tonnes
9. Revenue/month

Multiple regression technique has been applied to test the relationship between identified factors and profit.
To understand the significance of relationship between each of the selected factors and profit, the linear regression technique has been applied and the results are furnished in the following table.

**Table 30: Multiple Regression for Selected factors AND Profit**

| Model Summary | | | | |
|---|---|---|---|---|
| **Model** | **R** | **R Square** | **Adjusted R Square** | **Std. Error of the Estimate** |
| 1 | .952[a] | .907 | .895 | 6135.54881 |

From the table it can be observed that the R value is found to be 0.952. This implies that the selected factors have 95.2% influences on profit.

The following table shows the significance of relationship between selected factors and profit.

| ANOVA[b] | | | | | | |
|---|---|---|---|---|---|---|
|  | **Model** | **Sum of Squares** | **df** | **Mean Square** | **F** | **Sig.** |
| 1 | Regression | 2.602E10 | 9 | 2.892E9 | 76.814 | .000[a] |
|  | Residual | 2.673E9 | 71 | 3.764E7 |  |  |
|  | **Total** | **2.870E10** | **80** |  |  |  |

For the selected variables and profit ANOVA test is conducted and results are in above table. It shows the calculated F value is 76.814 and p value is 0 which is less than 0.05, hence it can be concluded that there is a significant relationship between the selected factors and profit

| Coefficients[a] | | | | | | |
|---|---|---|---|---|---|---|
| **Model** | | **Unstandardized Coefficients** | | **Standardized Coefficients** | **t** | **Sig.** |
| | | **B** | **Std. Error** | **Beta** | | |
| 1 | (Constant) | 216542.934 | 28527.749 |  | 7.591 | .000 |
|  | Cost of Raw Material | -.209 | .199 | -1.272 | -1.048 | .298 |
|  | Cost of Power and fuel | -6.065 | .952 | -1.502 | -6.369 | .000 |
|  | Wages & Salaries | -4.640 | .611 | -2.558 | -7.593 | .000 |
|  | Rent | -1.394 | .714 | -.091 | -1.952 | .055 |
|  | Interest on capital | -4.201 | .966 | -.352 | -4.350 | .000 |
|  | Cost of Repairs | -6.913 | 2.579 | -.498 | -2.681 | .009 |
|  | Miscellaneous expenses | -5.097 | 1.431 | -.380 | -3.561 | .001 |
|  | Out Put /month | .400 | .226 | 1.990 | 1.766 | .082 |
|  | Revenue/month | .358 | .197 | .242 | 1.814 | .074 |
| **a. Dependent Variable:** Profit/Month | | | | | | |

From the table it can be observed that every factor has a significant influence on the profit. Especially Revenue/month, output/month have a positive influence on the profit (profit is more by their influence) and factors such as cost of raw materials, cost of power and fuel, wages and salaries, rent, interest on capital, repairs and miscellaneous expenses have negative effect on the profit (profit is less by their influence).

**CONCLUSION:**

Coir units in the study area are playing predominant role in producing products like Coir fibre, coir yarn .It is evident from the study that the average profit distribution of 51.5 % of coir fibre units and 54.2 % yarn units are varying between 5% and 10% respectively.

Like Other industries the profit of coir industry in the study area is effected by identified factors like Cost of Raw Material ,Cost of Power and fuel ,Wages & Salaries ,Rent ,Interest ,on capital, Repairs, Miscellaneous expenses, Out Put /month in Tonnes, Revenue/month. The relation between identified factors and profit is measured by multiple regression analysis. The results of the multiple regression revealed that every factor has a significant influence on the profit. Especially Revenue/month, output/month have a positive influence on the profit (profit is more by their influence) and factors such as cost of raw materials, cost of power and fuel, wages and salaries, rent, interest on capital, repairs and miscellaneous expenses have negative effect on the profit (profit is less by their influence).Hence the entrepreneurs should adopt cost controlling techniques to improve their profits. On the other side of the analysis the results of the cost benefit analysis and Productivity ratio of the selected units are discouraging .The Anova results of Hypothesis test pertaining to the variance between Investment and Gaining profit is Significant in selected Coir units. So it is concluded that the entrepreneurs should invest better than the present level of investment to reduce the cost of production by adopting advanced technology to improve productivity.

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