



Indonesian Journal of Management Studies (IJMS)

E-ISSN: 2961-7979

Volume 3, No 1, Tahun 2024

IMPACT OF PERFORMANCE OF COIR INDUSTRY ON INDIAN ECONOMY

P NAVITHA¹, M. JEGADEESHWARAN²

^{1,2}Department of Commerce, Bharathiar University, Coimbatore, India

*Correspondence : navitha@gmail.com

Info Artikel	Abstrak
Received: 25 Juni 2024 Revised: 21 Juli 2024 Published: 25 Agustus 2024 Keywords: <i>Coir industry, coir production, coir exports, economic impact</i> © 2024 Perkumpulan Dosen Muslim Indonesia Under the license CC BY-SA 4.0 	Abstrak <i>Fokus penelitian ini adalah menganalisis kinerja industri sabut kelapa di India dan dampaknya terhadap perekonomian selama periode 2011-12 hingga 2020-21. Penelitian ini didasarkan pada data sekunder. Untuk analisis data digunakan alat seperti statistik deskriptif dan regresi. Penelitian ini menunjukkan bahwa serat sabut dan benang sabut diproduksi lebih banyak di India dan produksi berbagai jenis sabut kelapa tumbuh pada tingkat yang sama yang menunjukkan kemajuan dan perkembangan industri ini. Serat sabut, empulur sabut, dan alas berumbai merupakan produk sabut utama yang diekspor dari negara ini. Ekspor sabut kelapa meningkat dari tahun ke tahun dan memberikan dampak signifikan terhadap pembangunan ekonomi negara.</i> Abstract <i>The focus of the study is to analyse performance of the coir industry in India and its impact on the economy during the period 2011-12 to 2020-21. The study is based on Secondary data. For the analysis of data tools like descriptive statistics and regression is used in the study. The study shows that coir fibre and coir yarn is produced more in India and the production of different coir items grow at and equal rate which indicates the progress and development of the industry. Coir fibre, Coir pith and tufted mat are the major coir items exported from the country. Coir exports is growing year after year and is significantly impacting the economic development of the country.</i>

Introduction

Coir or the coconut fibre, is a natural fibre extracted from the outer husk of coconut. Coir is the fibrous material found between the internal shell and the outer shell of a coconut. Coir is generally used in products such as floormats, doormats, brushes, mattresses etc. Coir industry is one among the oldest industries in India. India is the major coconut producer around the globe which accounts for more than two third of the world's coir and coir products production. Coir industry contributes significantly to the economy of the country's major coconut producing states – Kerala, Tamil Nadu, Maharashtra, Karnataka, Andra Pradesh, Goa, Assam, Odisha, Andaman and Nicobar, Pondicherry, Lakshadweep etc. India, along with Sri Lanka produces 90 percent of the total global coir fibre.

Review of Literature

Singaravelu. K and Kavitha. M (2012) analysed the coir exports from India and found out that India is one of the top producers and exporters of coir in international market. The exports of coir and coir products from India are mainly to Western Europe and USA along with Japan and west asia.

Senthilkumar. R (2015) made an attempt to identify the problems faced by the coir industry in India. Availability, quality and cost of raw materials; labour productivity, labour ansenteesim and turnover; availability of funds, high rate of interest, and rigid bank procedures; machine breakdowns, power cut and high power charges; high transportation and salesman expenses, agent and middlemen charges, market rate fluctuations, and inadequate storage facilities; and inadequate infrastructure facilities are the main problems faced by coir industry in india.

Poornimadevi (2017) studied the problems and prospects of coir industry in Pollachi by making use of both primary and secondary data. Through the study it is evident that lack of awareness in the production of value added products is the major problem faced by the coir industry.

Praveenkumar. Kand Dr.Vinayagamoorthi. G (2017) attempted to study the export performance of coir industry in India by making use of secondary data. The results of the study indicate that the coir exports from India is increasing year by year and China is the top importer of Indian coir products.

Raseena. K. K (2018) focused on the impact of various trade reforms such as Multi- Fibre Agreement (MFA) under GATT Regime and the Agreement on Textiles and Clothing (ATC) under WTO Regimeon the export performance of the coir industry of India. The analysis of the reveals that the relaxations of trade restrictions have positive impacts on export performance of coir industry India.

Tanwani (2020) analysed the contribution of coir industry in terms of exports, employment, incentives offered by the coir board and MSME ministry to the coir industry, and the challenges faced by the coir industry in India using secondary data. The study covers a period of five years from 2014-15 to 2019-20. The study concluded that Coir industry plays an important role in the development of the country by generating employment in the rural areas. Coir production in the country is increasing year by year and coir exports has a major share in the exports of the country. Competition, safety of the workers, shortage of raw materials and migration of workers are the main challenges faced by the coir industry in India.

Statement of the Problem

Indian coir production accounts to more than two third of the global coir production. India exports coir and coir products to more than hundred countries around the globe. Coir industry is an agro-based rural industry providing employment to over seven lakhs workers, especially women in the major coconut producing states of the country. This study is an attempt to analyse the production of various coir and coir products in India, along with the exports of coir and coir products from India and its impact on the Indian economy.

Objectives of the study

- To analyse the growth in the production of coir and coir products in India
- To elucidate the export of coir and coir products from India

- To examine on the impact of coir exports on Indian economy

Hypothesis

- There is no significant impact of Coir exports on Indian economy

Research Methodology

The study is analytical in nature.

Source of data

The study is based on secondary data. Data on coir production and coir exports is collected from the annual reports of Coir Board. Data on macroeconomic variables such as GDP at constant price, Exchange rate of Indian rupees in terms of US Dollar and CPI combined Inflation rate is collected from the official website of Reserve Bank of India.

Period of study

The study covers a period of ten financial years from 2011-12 to 2020-21.

Tools for analysis

Tools like descriptive statistics and regression is used for the analysis of the data.

Analysis and Interpretations

Table 1: Estimated Production of Coir and Coir products from 2011-12 to 2020-21

Year	Estimated Production (Quantity in metric tons)						Total Production
	Coir fibre	Coir yarn	Coir products	Coir rope	Curled coir	Rubberized coir	
2011-12	531500	318900	210474	63780	63780	85040	1273474
2012-13	536185	321700	212322	64340	63780	86000	1284327
2013-14	539815	323900	213800	64780	64700	86370	1293365
2014-15	542000	325200	214600	65040	65040	86700	1298580
2015-16	549300	329600	217500	65920	65850	87900	1316070
2016-17	556900	334200	220500	66850	66800	89100	1334350
2017-18	559400	335700	221500	67150	67100	89500	1340350
2018-19	749600	449850	296800	90000	89900	119900	1796050
2019-20	741000	446000	294200	89200	88800	108500	1767700
2020-21	758000	456000	300800	91200	90800	110400	1807200
Mean	606370	364105	240250	72826	72655	94941	1451147
CV	0.16	0.16	0.16	0.16	0.16	0.13	0.16
CAGR	0.036	0.036	0.036	0.036	0.036	0.026	0.035

Source: Annual reports of Coir Board

The above table 1 exhibits the year wise production of coir and different coir products in India. Production of coir fibre have the highest mean value with 606370 followed by Coir yarn with mean value of 364105. The value of coefficient of variation is 0.16 for coir fibre, coir yarn, coir products and curled coir. Compound annual growth rate is 0.036 for coir fibre, coir yarn, coir products and curled coir, indicating

that the production of those items grew in the same rate for the past 10 years. The average coir production for the ten years is 1451147 metric tons and the compound annual growth rate is 0.035 indicating the overall coir production has increased by 3.5 per cent over the ten years.

Chart 1: Estimated Production of Coir and Coir products from 2011-12 to 2020-21

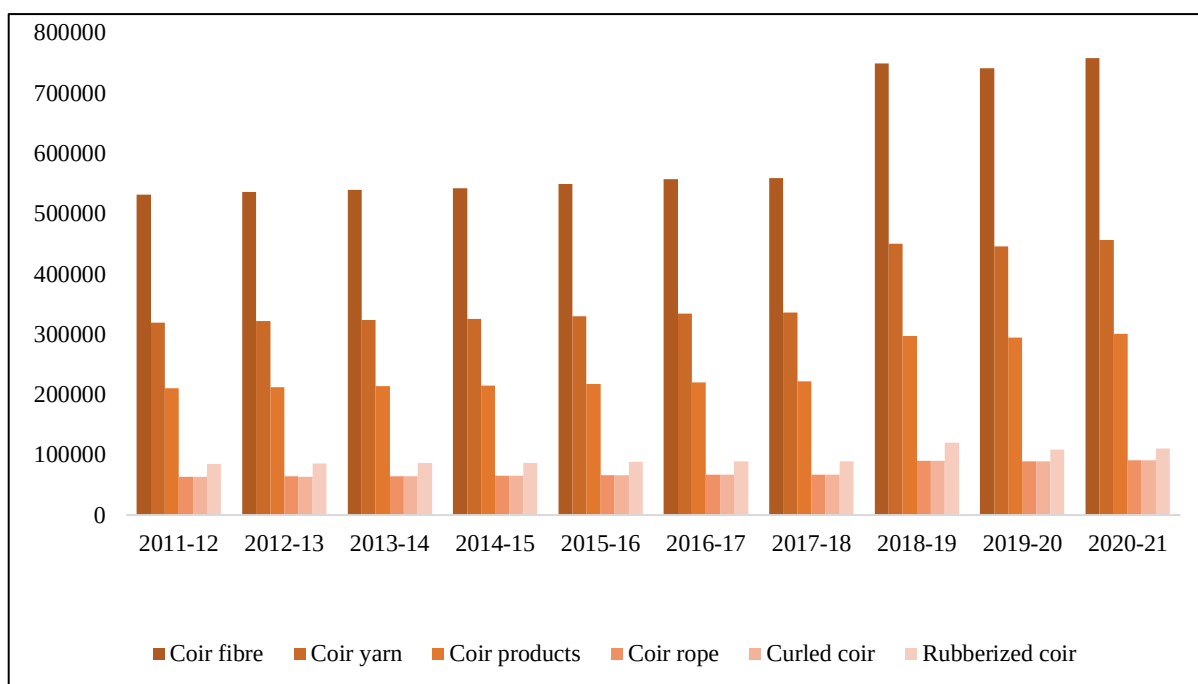


Chart 2: Trend in Coir production in India from 2011-12 to 2020-21

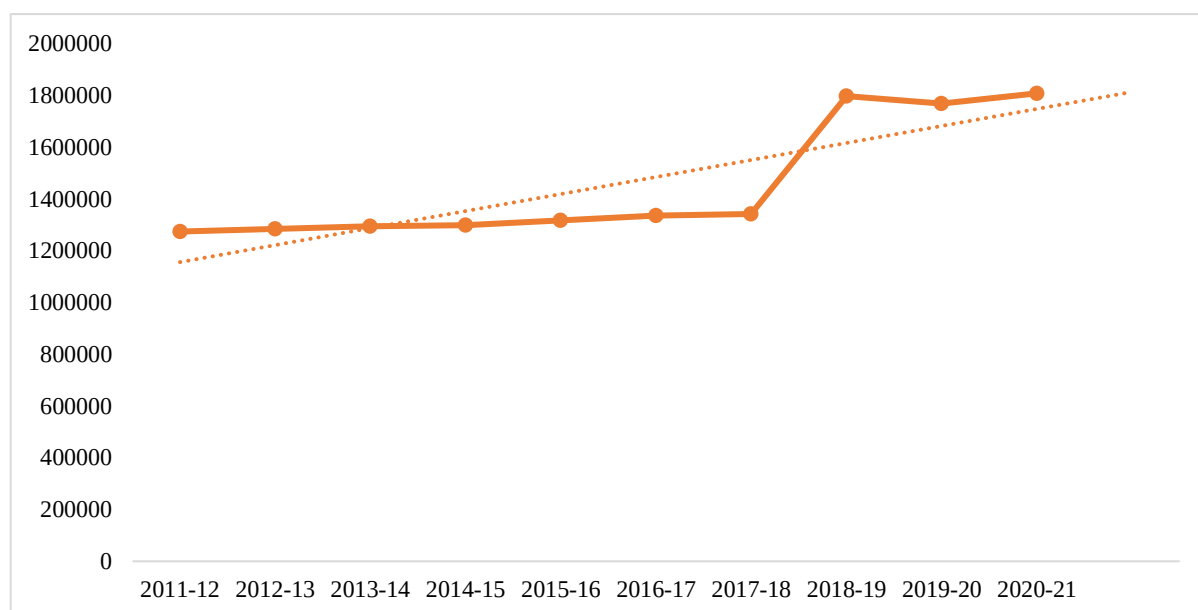


Chart 2 displays the annual coir production in India and the trend line of coir production. The trend line moves in upward direction indicating an upward trend in the coir production in India. It is evident from the chart that coir production has been increased largely after the year 2017-18.

Table 2: Exports of coir and coir products from India (Quantity in metric tons) from 2011-12 to 2020-21

Export of coir and coir products (Quantity in Metric tons)														
Year	Coir fibre	Coir yarn	Coir pith	Hand loom mats	Power loom mats	Tufted mat	Hand loom matting	Power loom matting	Coir geo-textile	Coir rugs & carpet	Coir rope	Curled coir	Rubberized coir	Coir other sorts
2011-12	119685	5563	206425	27656	36	33021	1474	0	3681	191	793	11856	416	58
2012-13	140693	4202	208399	24151	194	37288	1418	0	3597	95	420	8883	322	30
2013-14	173902	4247	271495	22609	234	43752	3425	0	4468	93	498	11263	965	89
2014-15	219103	4070	316425	25354	161	41284	1667	28	4236	135	614	12621	897	71
2015-16	255293	4134	408897	20386	280	45770	1706	16	4520	307	517	9470	678	46
2016-17	370357	4426	490552	20143	166	51718	1272	0	6219	205	484	10356	888	256
2017-18	374320	3328	548479	18277	37	54279	1117	131	5845	254	491	8800	900	306
2018-19	299279	3408	566661	19367	8	54131	1071	7	7674	195	486	10768	807	183
2019-20	308457	3028	579980	16910	26	58300	1177	5	8068	367	512	11290	578	298
2020-21	354123	3849	680898	20527	65	81799	1418	11	8583	327	505	9381	982	744
Mean	261521	4026	427821	21538	102	50134	1575	20	5689	217	532	10469	743	209
CV	0.36	0.176	0.397	0.156	0.991	0.274	0.435	2.026	0.330	0.441	0.194	0.125	0.316	1.039
CAGR	0.115	0.036	0.127	0.029	0.060	0.095	0.004	0	0.089	0.055	0.044	0.023	0.090	0.2890

Source: Annual reports of Coir Board

The above table 2 reveals the export of coir and coir products from India in terms of quantity from 2011-12 to 2020-21. The mean value is highest for coir pith with 427821 metric tons followed by coir fibre with 261521 metric tons indicating that Coir pith and Coir fibre is the most exported coir products from India in terms of quantity. The coefficient of variation is highest for exports of power loom matting with 2.026 indicating high fluctuation in exports. The coefficient of variation is lowest for Handloom mats with 0.156 indicating low fluctuation in exports. Compound annual growth rate is found highest for Coir other sorts with 0.2890 and least for coir rope with -0.044 indicating the exports of coir rope in terms of quantity increases year after year and exports of coir rope in terms of quantity decreases year after year.

Table 3: Exports of coir and coir products from India (Value in Rs. Lakhs) from 2011-12 to 2020-21

Year	Coir fibre	Coir yarn	Coir pith	Handloom mats	Powerloom mats	Tufted mat	Handloom matting	Powerloom matting	Coir geo-textile	Coir rugs & carpet	Coir rope	Curled coir	Rubberized coir	Coir other sorts
2011-12	20323.98	3140.7	22150.7	23545	24.56	27745.26	1582.93	0	2433.12	185.55	340.99	3171.3	549.8	68.75
2012-13	20707.66	2387.22	24727.61	22810.1	3.15	33572.91	1702.76	0	2628.74	133.37	282.41	2112.46	495.01	39.32
2013-14	32878.11	2848.26	34173.23	23623.82	278.36	41776.39	3353.91	0	3503.78	105.99	390.17	2947.93	1560.76	163.13
2014-15	41923.34	3000.89	43295.24	23946.91	225.25	39725.96	1835.28	43.93	3270.28	146.1	391.92	3732	1410.88	85.79
2015-16	41767.11	2820.82	68808.56	22279.96	367.35	44316.03	1968.78	26.48	3531.72	282.5	396.61	2510.07	971.74	94.79
2016-17	53913.63	2948.32	90539.11	21316.31	196.38	48442.83	1535.25	0	4481.04	271.92	388.5	2419.3	1295.64	416.59
2017-18	70177.88	2457.66	101846.8	18613.96	57.75	49591.41	1394.79	216.49	3996.59	269.58	401.72	2316.26	1388.64	498.29
2018-19	60164.11	2642.23	123208.5	21911.04	15.89	52225.03	1436.08	17.22	5972.56	243.96	439.79	3137.02	1029.58	361.58
2019-20	49842.56	2301.22	134962.9	19630.08	49.65	56344.14	1366.41	8.53	6389.45	483.82	466.03	2681.57	786.82	476.93
2020-21	62890.57	2919.3	191974.1	24662.1	106.51	80690.82	1712	19.24	7059.05	427.9	491.76	2422.22	1321.41	1200.96
Mean	45458.9	2746.66	83568.68	22233.93	132.48	47443.08	1788.82	33.19	4326.63	255.07	398.99	2745.01	1081.03	340.61
CV	0.377	0.103	0.666	0.087	0.955	0.306	0.326	1.989	0.373	0.484	0.149	0.180	0.347	1.031
CAGR	0.119	-0.007	0.241	0.004	0.158	0.112	0.008	0	0.112	0.087	0.037	-0.026	0.092	0.331

Source: Annual reports of Coir Board

Table 3 shows the export of coir and coir products from India in terms of value from 2011-12 to 2020-21. The mean value is highest for Coir pith with 83568.68 lakh rupees followed by Tufted mat and coir fibre with 47443.08 and 45458.9 lakh rupees. The coefficient of variation is found highest for Power loom matting with 1.989 followed by coir other sorts indicating high fluctuation in the exports of Power loom matting and coir other sorts in terms of value from India. The coefficient of variation is found least for Hand loom mats with 0.087 indicating least fluctuation in exports in terms of value. Compound annual growth rate is highest for exports of coir other sorts with 0.331 indicating the exports of other sorts of coir in terms of value is increasing year after year. Compound annual growth rate is least for Curled coir with -0.026 which indicates that the exports of curled coir in terms of value has decreased year after year during the last ten years.

Table 4: Impact of Coir exports on Indian economy

Model	R	R Square	Adjusted R Square	F	Sig.
GDP	.904 ^a	.816	.793	35.569	.000 ^b
Exchange rate	.913 ^a	.833	.812	39.944	.000 ^b
Inflation rate	.654 ^a	.428	.356	5.985	.040 ^b

a. Predictors: (Constant), Coir exports

b. Dependent Variable: GDP, Exchange rate, Inflation rate

Source: Computed from Secondary data using SPSS

Table 4 exhibits the regression analysis between Coir exports from India and the macro economic variables such as Gross Domestic Product, Exchange rate and Inflation rate. The R value of .904 reveals a strong positive relationship between Coir exports and GDP in India. R square value of .816 indicates that 81.6 percent changes in GDP can be explained by Coir exports. The R value of .913 exhibits a strong positive relationship between Coir exports and Exchange rate in India. R square value of .833 indicates that 83.3 percent changes in Exchange rate can be explained by Coir exports. The R value of .654 shows a positive relationship between Coir exports and Inflation rate in India. R square value of .428 indicates that 42.8 percent changes in Inflation rate can be explained by Coir exports. The significant value of GDP, Exchange rate and Inflation rate is less than .05 and hence the null hypothesis is rejected indicating there is a significant impact of Coir exports on GDP, Exchange rate and Inflation rate in India.

Findings

- Among the production of coir and coir products in India, Coir fibre and Coir yarn is produced more.
- Growth rate in the production of different coir items such as coir fibre, coir yarn, coir products, coir rope and curled coir is the same indicating the good progress of the coir industry.
- Coir production in India shows an upward trend.
- Coir pith and Coir fibre are the major coir items exported from India in terms of quantity.
- Growth rate of exports of other sorts of coir in terms of quantity is the highest.
- Growth rate of exports of coir rope in terms of quantity is the least.
- Coir pith, Tufted mat and Coir fibre are the major coir items exported from India in terms of value.
- Growth rate of exports of other sorts of coir in terms of value is the highest.
- Growth rate of exports of curled coir in terms of quantity is the least.
- There is a significant impact of coir exports on the Indian economy.

Conclusion

Coir industry plays a major role in the development of the Indian economy. Coir production in India grows year after year indicating the development and progress of the industry. Coir fibre and coir pith are the most produced coir items in India. Coir pith, coir fibre, and Tufted mat are mostly exported from India. Exports of other sorts of coir is growing at a higher rate. Performance of coir industry and the exports of coir have an important role to play in the economic development of the country.

Reference

- Poornimadevi S (2017). "A study on the Problems and Prospects of Coir Industry in Pollachi, Coimbatore District". *International Journal of Advanced Trends in Engineering and Technology*. Volume 2. Issue 1. pp. 87-92.
- Praveenkumar K (2017). "A study on Export performance of Coir Industry in India". *Shanlax International Journal of Commerce*. Volume 5. No. 4. pp. 59-69.
- Raseena K K (2018). "Coir Industry: Trade Reforms and the Export Performance". *Shanlax International Journal of Economics*. Volume 6. No. S1. pp. 36-42
- Reetu Murlidhar Tanwani (2020). "Performance of Coir Industry of India". *Gap Gyan*. Volume III. Issue IV. pp. 21-25.
- Senthilkumar R (2015). "Problems and Prospects of Coir Industry". *Asia Pacific Journal of Research*. Volume I. Issue XXXIV. pp. 201-205.
- Singaravelu K and Kavitha M (2012). "Export of Coir and Coir Products from India: An Analysis". *Eduved International Journal of Interdisciplinary Research*.