ISSN 0974-763X
UGC-CARE Listed Journal

SOUTH ASIAN JOURNAL OF MANAGEMENT RESEARCH (SAJMR)

Volume 15, Issue No.3 July, 2025

50 Years of Educational Excellence
2025-26
CSIBER, KOLHAPUR

CHHATRAPATI SHAHU INSTITUTE OF BUSINESS EDUCATION AND RESEARCH (CSIBER), KOLHAPUR, MAHARASHTRA, INDIA

(An Autonomous Institute)
University Road, Kolhapur - 416004, Maharashtra State, India.

website : www.siberindia.edu.in
E-mail : editorsajmr@siberindia.edu.in

Published by

CSIBER Press, Central Library Building

Chhatrapati Shahu Institute of Business Education & Research (CSIBER)

(An Autonomous Institute)

University Road, Kolhapur - 416004, Maharashtra State, India

Phone : 0231-2535706 / 2535707

website : www.siberindia.edu.in

E-mail : editorsajmr@siberindia.edu.in

Chhatrapati Shahu Institute of Business Education and Research (CSIBER)

South Asian Journal of Management Research (SAJMR)

Volume 15, Issue No. 3, July 2025

Editor: Dr. Pooja M. Patil

Publisher
CSIBER Press
Central Library
Chhatrapati Shahu Institute of
Business Education & Research (CSIBER)
University Road, Kolhapur – 416004, Maharashtra, India.
Phone: 91-231-2535706/07, Fax: 91-231-2535708,
Website: www.siberindia.edu.in
Email: csiberpress@siberindia.edu.in
Editor Email: editorsajmr@siberindia.edu.in

Address:
CSIBER Press
Central Library Building
Chhatrapati Shahu Institute of Business Education and Research (CSIBER),
University Road Kolhapur, Maharashtra - 416004, India.

ISSN: 0974-763X
Price: INR ₹ 1,200/-
Editor: Dr. Pooja M. Patil

Distributed By
CSIBER Press
Central Library
Chhatrapati Shahu Institute of
Business Education & Research (CSIBER)
University Road, Kolhapur – 416004, Maharashtra, India.
Phone: 91-231-2535706/07, Fax: 91-231-2535708,
Website: www.siberindia.edu.in
Email: csiberpress@siberindia.edu.in

South Asian Journal of Management Research
(SAJMR)

Volume 15, Issue No. 3 **July, 2025**

C O N T E N T S

The Challenges Faced By Coconut Processing Firms across Kerala an Analytical Study

Bitto Paul
Research Scholar,
Thanthai Hans Roever College, Perambalur
(Autonomous) Affiliated to Bharathidasan
University, Trichy, Tamil Nadu India

Dr. DEVI. P
Research Advisor,
Thanthai Hans Roever College, Perambalur
(Autonomous) Affiliated to Bharathidasan
University, Trichy, Tamil Nadu India

Abstract

Coconut processing firms play a vital role in strengthening the coconut industry, particularly in states like Kerala, where coconut cultivation is widespread. Despite their importance, these firms have been experiencing a decline in growth in recent years. The current study was undertaken to examine and evaluate the significant challenges that coconut processing firms in Kerala are currently facing. To carry out this investigation, five key variables were considered: Finance, Labour, Marketing, Competition, and Technology. Primary data for the study were gathered from 155 coconut processing firms located across various regions of Kerala. A structured questionnaire was developed using Google Forms to ensure consistency and accuracy in data collection. The responses collected were then analyzed using Microsoft Excel. Statistical tools such as percentage analysis, ranking methods, and the chi-square test were employed to interpret the data and derive meaningful conclusions.

The results of the study indicate that financial difficulties are the most significant challenge confronting coconut processing firms in the state. These economic constraints were ranked first, underscoring the critical role that access to adequate funding plays in the smooth operation and expansion of such firms. Labour-related issues were identified as the second major challenge. Many firms reported problems related to the availability, cost, and skill level of labour, which directly impact productivity and operational efficiency. Marketing emerged as the third-ranked challenge. Firms often face difficulties in effectively promoting and selling their products due to limited market access, lack of branding, and stiff competition from larger players. The competition itself was ranked fourth, suggesting that while it is a concern, it is not as pressing as financial or labour issues. Nonetheless, the influx of competitors—both from within and outside the state—has added pressure on local processors to innovate and improve efficiency. Finally, technological constraints were ranked the lowest among the five variables. This indicates that although a lack of advanced technology is a concern, it is not as immediate or severe as the other issues. However, in the long run, limited access to modern processing equipment and techniques may hinder the industry's ability to remain competitive in a rapidly evolving market. In conclusion, the study highlights that financial issues are the foremost obstacle for coconut processing firms in Kerala, followed by challenges related to labour, marketing, competition, and technology. Addressing these challenges through policy support, financial assistance, skill development, and technological upgrades could significantly aid in revitalizing the coconut processing sector in the region.

Keywords: Coconut Processing Firms, Annual Turnover, Technology, Value-Added Products, Financial Problems.

Introduction

Coconut is recognized as one of the most versatile and valuable natural resources globally, with its applications spanning a wide range of industries, including food and beverages, cosmetics, pharmaceuticals, and various industrial sectors. Due to its multifaceted utility, the coconut industry presents lucrative opportunities for entrepreneurs seeking to establish businesses based on coconut-based products. India holds a prominent position in global coconut production, ranking as one of the leading producers worldwide. The country cultivates coconuts over an extensive area of approximately 1.97 million hectares. Among the Indian states, Kerala stands out as the most significant contributor, accounting for over 90% of the nation's total coconut output. The favorable climatic conditions, fertile soil, and traditional expertise in coconut farming have positioned Kerala as the epicenter of the coconut industry in India. Coconut processing firms in the region play a pivotal role in transforming raw coconuts into a wide array of value-added products. These include but are not limited to, Virgin Coconut Oil (VCO), Desiccated Coconut Powder, Activated Carbon, Coconut Milk, Coconut Oil, and other derivative products. Such processed goods not only meet domestic demand but are also gaining popularity in international markets, driven by increasing consumer awareness of natural and organic products. The rising global demand for coconut-based products presents significant growth potential for coconut processing enterprises. Establishing a coconut processing business offers a promising avenue to capitalize on this expanding market trend. By leveraging innovative technologies and efficient supply chain systems, entrepreneurs can tap into both domestic and export

markets, contributing to rural development, employment generation, and economic growth, particularly in coconut-producing regions like Kerala.

Literature Review

Coconut farmers in Kerala have demonstrated varying levels of satisfaction with co-operative marketing systems, with studies revealing structural deficiencies and unmet expectations in several key areas of performance. Evaluations of farmer perceptions indicate that positive sentiment toward co-operative channels was lacking in a majority of the assessed variables, suggesting the need for institutional reform and improved functional efficiency (Ayyoob et al., 2012).

Despite substantial institutional support, Coconut Producer Societies (CPSs) have shown limited effectiveness in revitalising the sector, primarily due to inadequate infrastructure and limited availability of suitable coconut varieties. Many societies have struggled to participate actively in value addition, marketing, and the use of formal credit facilities, thereby weakening their impact on processing and marketing outcomes (Sebastian, 2013).

The formation of community-based producer groups has been shown to positively influence rural livelihoods, with collective action improving food security, social cohesion, and economic stability. These outcomes reinforce the value of group-based initiatives in empowering agricultural communities (Jnanadevan, 2018). A broader analytical examination of coconut product economics has also identified inefficiencies in value chain operations that impact profitability and sustainability in the sector (Elias, 2014). Furthermore, an early study underscored the crucial role of organised market federations in enhancing price realisation, minimising post-harvest losses, and reducing transaction costs across supply chains (Pillai, 1994).

Virgin coconut oil (VCO) has emerged as a prominent value-added product within the coconut industry. Several studies have affirmed its nutritional and therapeutic value, positioning it as a functional food with significant consumer appeal (Marina et al., 2009; Nevin & Rajamohan, 2004). Sensory evaluations have further validated its market potential based on taste and aroma preferences among consumers (Villarino et al., 2007). The increasing popularity of VCO in Kerala is supported by consumer-based research highlighting awareness levels, purchase patterns, and demographic differences in consumption behaviour (John & Ushadevi, 2018). Branding and market positioning efforts have also played a role in expanding the reach of niche VCO products (Salomy et al., 2019), with further research demonstrating its growing acceptance beyond Kerala, notably in urban centres like Bangalore (S.P. et al., 2023).

Challenges in coconut cultivation and primary production have been exacerbated by external shocks such as the COVID-19 pandemic, which disrupted supply chains and exposed systemic vulnerabilities related to labour availability and price instability (Mathuthra & Arumugaswamy, 2020). Similar constraints have been observed in other regions, where marketing inefficiencies and resource limitations have adversely affected producer margins (Shashikumar & Chandrashekar, 2014). Region-specific studies in Kerala have highlighted persistent agronomic and marketing barriers that continue to affect farmer motivation and long-term viability (Veerakumar, 2019).

Recent value chain analyses have emphasised the need for integrated approaches to strengthen the coconut sector. Improved coordination across production, processing, and marketing segments is seen as essential for enhancing competitiveness and ensuring equitable value distribution among stakeholders (Veerakumaran et al., 2023).

Statement of the Problem

The coconut processing industry is a vital segment of Kerala's agro-based economy, contributing significantly to rural employment, entrepreneurship, and value addition. With Kerala being one of the largest coconut-producing states in India, the region has witnessed the emergence of numerous small and medium-scale processing units focused on products such as virgin coconut oil, coconut milk, and desiccated coconut powder. Despite the sector's inherent potential and a favourable supply base, recent trends indicate a worrying decline in the operational performance and growth trajectory of many coconut processing enterprises in the state.

This decline is attributed to a range of interrelated challenges that adversely affect the competitiveness and sustainability of these firms. Reports from industry bodies and preliminary observations suggest that access to institutional finance remains limited, especially for micro and small entrepreneurs. Labour shortages, rising wage costs, and a dearth of skilled manpower have further intensified operational inefficiencies. In addition, marketing constraints, such as poor brand positioning, limited market reach, and weak distribution networks, have impeded firms' ability to scale and differentiate their products. Many units also rely on outdated processing technologies, which not only reduce production efficiency but also affect product quality. The growing presence of large-scale competitors, including multinational brands and organised players, has further heightened market pressures for local processors.

Although these issues are widely acknowledged, there is a lack of comprehensive empirical studies that systematically identify, rank, and analyse the specific challenges faced by coconut processing firms in Kerala.

Existing literature predominantly focuses on coconut cultivation or consumer trends, with limited attention to the supply-side constraints encountered by processing units. Hence, a data-driven investigation is necessary to capture the lived realities of entrepreneurs in this sector and to inform targeted policy and managerial interventions. This study seeks to bridge this gap by examining the major operational challenges experienced by coconut processing firms in Kerala and exploring their relationship with firm characteristics, thereby contributing to the discourse on rural industrial sustainability.

Scope of the Study

This research, titled "The Challenges Faced by Coconut Processing Firms," is focused on exploring and analyzing the core difficulties experienced by coconut processing enterprises within the state of Kerala. The primary objective is to investigate the key factors impeding the growth and development of these firms, irrespective of their operational scale or production capacity. The study encompasses a broad range of coconut processing units, including both small-scale and larger businesses involved in the production of value-added coconut products. A total of 155 firms were selected as the sample size for the research. Data collection was carried out through a structured and comprehensive questionnaire designed to gather relevant insights from the respondents. The findings aim to provide a clear understanding of the prevailing issues within the sector and offer meaningful recommendations for policymakers, industry stakeholders, and entrepreneurs.

Objectives of the study

- To examine the demographic characteristics of coconut processing firms in Kerala.
- To identify and rank the key challenges encountered by coconut processing firms in their operations.
- To analyse the association between firm-specific characteristics and the challenges they face in coconut processing.

Hypothesis of the Study

- H_{01}: There is no significant association between the experience of the firm in coconut processing and the challenges faced.
- H_{02}: There is no significant association between the type of ownership of the coconut processing firm and the challenges faced.
- H_{03}: There is no significant association between the level of technology used in coconut processing and the challenges faced.
- H_{04}: There is no significant association between the annual turnover of coconut processing firms and the challenges faced.

Research Methodology

The present study is exploratory, and it is based purely on primary data from three months. For data collection, the simple random sampling method was used, and the response was strictly restricted to coconut processing firms that produced coconut-based value-added products in the Kerala region. For this, a standard, well-structured Google survey questionnaire was developed and forwarded through email. Initially, 250 Google survey forms were forwarded, and ultimately,155 responses were received and found appropriate for the study.

Tools and Techniques

The collected data were analyzed with the help of the Microsoft Excel Add-Inn (Analysis tool Pak) feature by using statistical tools, that is, percentage, rank, and chi-square test, to test the hypotheses and assess the relationship between demographic variables and The challenges faced by coconut processing firms.

Data Analysis and Result

Table No.1: Demographic profile of coconut processing firm

Demographic profile	Factors	Frequency	Percentage
Experience in coconut processing	Less than one year	53	34
	One to three years	38	25
	Three to six years	47	30
	Above six years	17	11
	Total	155	100
Type of coconut processing firms	Single owner	63	41
	Partnership	31	20
	Company	04	2
	Co-operative society	57	37
	Total	155	100
Technology used in coconut processing	No technology	33	22
	Semi mechanized	86	55
	Fully mechanized	36	23
	Total	155	100
Annual turnover	Less than one crore	74	48
	One to three crore	34	22
	Three to six crore	43	28
	Above six crore	04	2
	Total	155	100

The survey yielded 155 responses from various parts of Kerala state. Experience in coconut processing is an important factor in identifying the challenges faced by coconut processing firms. Table 1 shows that 53 %of the respondents had less than one year of experience in coconut processing and only 17 % of the respondents had more than six years of experience in coconut processing. The type of coconut processing firms is another important factor in identifying the challenges. The result shows that most of the (63 %) firms do their business in single ownership, followed by Co-operative society (57 %). According to technology Used in coconut processing,86 % of firms used semi-mechanized technology,36 % used Fully mechanized technology, and 33 % used No technology in coconut processing. Based on annual turnover, 74 % of the coconut processing firms have less than one crore annual turnover, and only 4% have above six crores annual turnover in the year.

Table No. 2 : The challenges faced by coconut processing firms

challenges	1 Rank	2 Rank	3 Rank	4 Rank	5 Rank	Total	Rank Assigned
Financial problems	55	32	28	63	28	206	1
Labour problems	43	61	47	26	27	204	2
Marketing problems	32	22	33	28	25	140	3
Competition	15	18	38	23	42	136	4
Lack of Technology	10	22	09	15	33	89	5

Over the past few years, coconut processing firms in Kerala have suffered huge losses for several reasons. Table 2 represents the various challenges faced by coconut processing firms. The above table shows that financial problems are the main challenges faced by coconut processing firms, with the first rank, the second rank assigned to labour problems, the third rank given to marketing problems, and the fourth rank given to competition. The fifth rank is assigned to lack of technology. Therefore, it can be summarized that financial problems are the main challenges faced by most coconut processing firms, followed by labour problems, marketing problems, competition, and lack of technology

Hypothesis testing

Table No. 2 : Demographic Variables and the Challenges Faced by Coconut Processing Firms

Demographic profile	factors	Chi-square value	Null Hypothesis
Experience in coconut processing	Less than one year	$\chi 2$ =17.926 Df = 6 P = 0.382	Accepted
	One to three years		
	Three to six years		
	Above six years		
Type of coconut processing firms	Single owner	$\chi 2$ =12.307 Df = 6 P = 0.055	Accepted
	Partnership		
	Company		
	Co-operative society		
Technology used in coconut processing	No technology	$\chi 2$ = 38.958 Df = 4 P = 0.000	Rejected
	Semi mechanized		
	Fully mechanized		
Annual turnover	Less than one crore	$\chi 2$ = 16.956 Df = 6 P = 0.021	Rejected
	One to three crore		
	Three to six crore		
	Above six crore		

Hypothesis 1. On the application of the chi-square test, the calculated value of the chi-square test is 17.926, and the p-value is 0.382..it is found that the p-value exceeds the significance level, i.e. 5%. Hence, the null hypothesis is accepted. It may be concluded that there is an insignificant association between Experience in coconut processing and the challenges faced by coconut processing firms.

Hypothesis 2. The calculated value of the chi-square test is 12.307, and the p-value is 0.055.It was found that the p-value exceeded the significance level by 5%. Hence, the null hypothesis is accepted. This means that the results of the statistical test are insignificant. It means the variables are independent, or there is no relationship between the type of coconut processing firms and the challenges faced by coconut processing firms.

Hypothesis 3. The chi-square value for the association between technology used in coconut processing and their challenges is 38.958 with 6 degrees of freedom, and a significance probability is less than 0.05 %, i.e., a significant result. Therefore, there is an association between the technology used in coconut processing and their challenges.

Hypothesis 4. There is an association between the Annual turnover of coconut processing firms and their challenges because the calculated value of the chi-square test is 16.956, and the p-value is 0.021. The p-value is found to be less than the 5 level of significance

Conclusion and Recommendations

Coconut processing firms play a vital role in the advancement of the coconut industry and contribute significantly to rural employment generation, particularly among the younger population in Kerala. However, in recent years, many of these firms have encountered numerous operational and structural challenges that have hindered their growth and sustainability. This study has revealed that financial difficulties are the most pressing issue faced by coconut processing firms in Kerala, followed by labour shortages, inadequate marketing strategies, and limited access to modern technology. To enhance the competitiveness and resilience of these firms, both the industry stakeholders and policymakers must address these challenges through strategic interventions. In particular, it is recommended that the government extend venture capital assistance and facilitate access to financial resources for emerging entrepreneurs. Moreover, capacity-building initiatives, including specialized training programs, should be organized to equip aspiring entrepreneurs with the knowledge and skills necessary for managing and expanding coconut processing ventures effectively. Strengthening infrastructure, improving access to markets, and encouraging technological adoption are also essential measures to revitalize this crucial rural industry.

The findings of this study offer valuable insights into the core challenges faced by coconut processing firms in Kerala. For existing enterprises, the study serves as a practical guide for identifying critical operational areas that require attention and improvement. By focusing on these areas, firms can formulate more effective business strategies and enhance their overall performance. Additionally, the study provides a valuable framework for prospective entrepreneurs and investors who are considering entering the coconut processing sector. The insights gained from this research can inform strategic planning, investment decisions, and operational design to ensure long-term sustainability and profitability.

Limitations of the Study and Scope for Further Research

While this study contributes meaningfully to the understanding of the challenges in the coconut processing sector, it is subject to certain limitations:

- The research is geographically confined to the state of Kerala and may not fully represent challenges in other coconut-producing regions.
- The sample size of 155 firms, though adequate for preliminary insights, may not capture the complete diversity and scale of the industry across the state.
- The focus of the study was limited to coconut processing firms; future research could broaden the scope to include supply chain actors, such as raw coconut suppliers and distribution networks.
- Similar studies can be conducted in other states or regions to allow for comparative analysis and generalization of findings.

References

Elias, G. (2014) 'Economics of coconut products—An analytical study,' Commerce Spectrum, 5(2), **pp. 39–44.**

John, S.Z. and Ushadevi, K.N. (2018) 'Consumer profile, awareness and consumption pattern of virgin coconut oil in Kerala', Advance Research Journal of Social Science, 9(2), **pp. 179–186.** https://doi.org/10.15740/HAS/ARJSS/9.2/179-186

Jnanadevan, R. (2018) 'Virgin coconut oil gaining popularity as a functional food', Indian Coconut Journal, 61(1), **pp. 6–8.** ISSN: 0970-0579.

Marina, A.M., Che Man, Y.B. and Amin, I. (2009) 'Virgin coconut oil: Emerging functional food oil', Trends in Food Science & Technology, 20(10), **pp. 481–487.** https://doi.org/10.1016/j.tifs.2009.06.003

Mathuthra, O. and Arumugaswamy, P. (2020) 'The study of problems faced by coconut growers in the Coimbatore district during the COVID-19 pandemic', International Journal of Management (IJM), 11(12**), pp. 2137–2146.** https://doi.org/10.34218/IJM.11.12.2020.201

Nevin, K.G. and Rajamohan, T. (2004) 'Beneficial effects of virgin coconut oil on lipid parameters and in vitro LDL oxidation', Clinical Biochemistry, 37(9), **pp. 830–835.** https://doi.org/10.1016/j.clinbiochem.2004.04.010

Salomy, S., Sangeetha, M., Gokula Krishnan, R.P. and Selvakumar, R. (2019) 'Research on market positioning of Kalco's virgin coconut oil (K's-VCO) as a functional food', International Journal of Engineering and Advanced Technology (IJEAT), 8(3S). ISSN: 2249-8958.

S.P., D., Mahendran, K., Hemalatha, S., Muralidharan, C. and Selvi, R.P. (2023) 'A study on consumer profile and preference for virgin coconut oil in Bangalore city', Asian Journal of Agricultural Extension, Economics & Sociology, 41(10), **pp. 102–109.** https://doi.org/10.9734/ajaees/2023/v41i102147

Shashikumar, S. and Chandrashekar, H.M. (2014) 'An analysis of production and marketing of coconut in Tumkur District, India', International Journal of Science, Environment and Technology, 2(10), **pp. 167–175.** ISSN: 2347-3215.

Veerakumar, K. (2019) 'Challenges of agriculturists in coconut cultivation of Meenakshipuram village, Chittur Taluk, Kerala', International Journal of Innovative Technology and Exploring Engineering (IJITEE), 8(11S), **pp. 1696–1701**. https://doi.org/10.35940/ijitee.A6037.09811S19

Veerakumaran, G., Kuriakose, G., Sabu, A. and Byju, A. (2023) 'Value chain perspective of coconut', Asian Journal of Agricultural Extension, Economics & Sociology, 41(10), **pp. 102–109.** https://doi.org/10.9734/AJAEES/2023/v41i105479109

Villarino, B.J., Dy, L.M. and Lizada, M.C.C. (2007) 'Descriptive sensory evaluation of virgin coconut oil and refined, bleached, and deodorized coconut oil', LWT - Food Science and Technology, 40(2), **pp. 193–199**. https://doi.org/10.1016/j.lwt.2005.11.007