Constraints faced by the Cashew processing unit owners and the labourers in the Kollam district of Kerala

ABSTRACT

The study aimed to identify and analyse the constraints faced by the cashew processing unit owners and labourers in Kerala, particularly in the district of Kollam were the cashew industry is prominent. A total of 40 cashew processing units were selected randomly, and three workers were chosen from each unit, resulting in a sample of 160 respondents. Information was gathered from both the unit owners and the workers regarding the major constraints they are facing in the cashew processing. These constraints were ranked using Garrett's ranking technique. The high processing costs, competition from other cashew-producing nations, and difficulties in maintaining a steady supply of cashew kernels were the major constraints faced by the processing unit owners. While, irregular income, physical strain and health issues, and high debt burden were the important constraints reported by the cashew labourers. The findings highlighted the need for critical issues impacting the productivity and sustainability of the cashew industry in Kerala. This study provides valuable insights that can guide policymakers and stakeholders in developing targeted interventions to improve working conditions, financial stability, and operational efficiency in the cashew sector.

Keywords: Cashew processing units, Owners, Laborers, Constraints, Garrett ranking technique,

1. INTRODUCTION

Cashew (Anacardium occidentale L.) introduced to India by the Portuguese in the 16th century, has become one of the country's most important cash crops. Initially, it was cultivated in Goa, later the cashew cultivation expanded to different states across India due to the tree's resilience, drought resistance, and environmental benefits (D'Silva and Bhat, 2021). In India cashew is grown in an area of 11.84 lakh hectares with a total production of 7.52 lakh tonnes of raw cashew nuts. India ranks the second position globally in terms of both area and production, contributing 15.71 and 18.48 per cent, respectively (GoI, 2022). In 2022, India ranked second in global exports cashew kernels and is also a leading importer of raw cashew nuts. In 2023-24, India exported 65,808.42 MT of cashew kernels valued at Rs. 2808.80 crore. The major export destinations were UAE, Japan, and the Netherlands (GOI, 2024). In Kerala, cashew was cultivated in an area of 1.07 lakh ha with a production of 71,760 metric tonnes in 2021-22 (GoK, 2022). In 2020-21, Kerala accounted for 49.87 and 50.27 per cent of export quantity and export value of cashew from India. According to Cochin Port Trust, the quantity of cashew kernels exported from Cochin Port in 2022-23 was 21,858 MT. This is 48.6 per cent of total cashew kernel export from India (GOK, 2023). This underscores the importance of cashew industries in Kerala, particularly in the Kollam District, which has historically been recognized as a global hub for cashew trading (Bhat *et al*., 2021). This labour-intensive industry has a long-standing tradition of

employing a substantial number of women, who comprise around 94 per cent of the workforce. The cashew sector provides livelihoods for thousands of individuals, making it an essential source of employment, especially for women (Retheesh, 2005). However, the industry in Kerala has been under significant pressure due to multiple challenges. The number of processing units has fluctuated over time, and the current employment situation is bleak, with the industry's performance steadily declining since globalization. This has led to lower wages, fewer working days, and in some cases, job losses as processing units close down. Parvathy (2018) reported that 90 per cent of the processing units in Kollam was closed down due to multiple reasons. Women workers in this sector face severe difficulties and moving to other industries (GOK, 2023). A study on the constraints faced by cashew processing unit owners and labourers is vital for policymakers to address labour shortages, rising production costs, and issues related to raw material supply. This study can inform the formulation of targeted policies that enhance operational efficiency, promote technological advancements, and improve working conditions, while ensuring sustainable livelihoods for the workforce. Ultimately, these efforts will strengthen the cashew processing sector in Kerala and enhance its competitiveness in the global market.

2. MATERIALS AND METHODS

The research was conducted in the Kollam district of Kerala, selected for its significant concentration of cashew processing units. A random selection process was employed, focusing on 40 cashew processing units distributed across eight circles: Ayoor, Vadakkevila, Chathannoor, Chavara, Ezhukone, Kollam, Kottarakkara, and Kundara. From each selected unit, the owner and three labourers were chosen, resulting in a total sample size of 160 participants. Data were collected through both primary and secondary sources. Primary data were obtained via structured interviews with the unit owners and workers, while secondary data were sourced from relevant government agencies and organizations, including the KSCDC, The Cashew Export Promotion Council, Indiastat, Ministry of Commerce and Industry, Economic Review, Directorate of Cashewnut and Cocoa Development. The constraints faced by the cashew processing units and their workers were analysed using the Garrett ranking technique, facilitating a comprehensive understanding of the challenges within the industry.

Commented [LE1]: Year?

2.1 Garrett ranking technique

The Garrett ranking technique was employed to rank the constraints faced by the respondents in the study. This method is instrumental in identifying the most significant challenges that cashew industry owners and cashew labourers encounter. Respondents were asked to rank the identified constraints and these ranks were then converted into mean scores (Garrett ranking) to provide a clearer picture of the constraints present in the study area.. The ranks assigned to different constraints were converted into percentages using the following formula:

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Per cent position = $100\times (R_{ij} -0.5)/N_j$

R_{ij}= Rank given for i^{th} factor by j^{th} individual

N_j= Number of factors ranked by j^{th} individual

The percentage positions were subsequently transformed into scores on a 100-point scale utilizing the table established by Garrett and Woodworth (1969). The average score level was derived from these scores, and the constraints were then ranked based on these mean scores.

3. RESULTS AND DISCUSSION

3.1 Constraints faced by cashew processing unit owners

The key constraints faced by cashew industry owners in Kerala were identified and ranked according to the responses collected from industry owners in the study area. The major constraints reported by the unit owners were high processing costs, high competition from other cashew-producing nations, and difficulty in maintaining a steady supply of cashew kernels to the global market (Table 1). Among these, high processing costs identified as the most important constraint with a Garrett score of 78.23. In Kerala, cashew processing is still labour intensive and processing tasks like shelling, peeling and sorting were usually done by the labourers. Yadav (2010) also reported that in Kerala cashew processing was labour intensive and for processing one bag of raw nuts (80 kg) requires 7 person days in Kerala. Compared to other Indian states, the wage rates of workers were high in Kerala, which may be attributed to one of the reasons for the high processing cost. Even though some factories run with the most modern technologies, many cashew factories in Kerala still use less efficient machinery. This in turn increases the cost of processing. Moreover, the heavy reliance on raw cashew nuts from African countries also increased the raw material cost and thereby increased the processing cost. High competition from other cashew-producing nations was the second major constraint reported by the unit owners with a Garrett score of 67.63. India faces significant competition from Vietnam, Brazil and African countries. During early 2000's Vietnam emerged as a major exporter of cashew kernels in the global market and challenging the dominance of India's position in the global market. The adoption of modern processing technologies and high government support favour the growth of cashew industries in Vietnam. During the same time many African countries started their own processing plants that again reduced the competitiveness of Indian cashew industry. Bhat *et al*. (2021) also reported that role of India has been diminishing in the global cashew market due to the severe competition from Vietnam and African countries. Difficulty in maintaining a steady supply of cashew kernels to the global market also one of the major constraints reported by the unit owners with a Garrett score of 52.25. Due to the low domestic production of cashew nuts, the industries are heavily depended on imported raw cashew nuts. The high price of raw cashew nuts and high imported duties limits the stable supply of cashew kernels in the international markets. The study conducted by Walke (2005) in Ratnagiri district also observed that about 38.91 per cent of processors faced challenges related to the non-availability of sufficient raw materials to produce processed cashew kernels. A study conducted by Bhat *et al.* (2024) reported that in India around 50 per cent of raw cashew nut requirement of domestic industries were met from import of raw cashew nuts.

The other notable constraints reported by the unit owners are financial constraints (43.83, frequent changes in government policy (40.95), challenges in monitoring overseas business activities (38.13), and difficulties in meeting international quality standards (25.82). This ranking provides a clear view of

the key issues that need to be addressed to enhance the competitiveness and sustainability of the cashew industry in Kerala.

Table 1: Constraints faced by cashew processing unit owners

Sl. No.	Constraint	Garrett's score	Garrett's rank
1	High processing costs	78.33	I
2	High competition from other cashew-producing nations	67.63	II
3	Difficulty in maintaining a steady supply of cashew kernel to global market	52.25	III
4	Financial Constraints	43.83	IV
5	Frequent changes in government policy	40.95	V
6	Challenges in monitoring overseas business activities	38.13	VI
7	Difficulty in meeting international quality standards	25.82	VII

3.2 Constraints faced by cashew processing unit labourers

The major challenges faced by cashew processing workers were identified and ranked according to the responses collected from the cashew labourers in the study area. The identified constraints include irregular income, physical strain and health issues, debt burden, low wage rates, difficulty in managing work and household responsibilities, poor working conditions and lack of job security and retirement benefits (Table 2).

Irregular income was identified as the most significant constraint with a Garrett score of 74.29. The primary reason contributing to the irregularity in income is the inconsistent number of working days. In Kollam, the majority of the industries operated for less than 15 days per month due to the shortage of raw cashew nuts. Since the labourers are paid on a piece-rate basis, the reduction in the number of working days coupled with the shortage of raw materials contributed to both irregular and low income. A study conducted by the Kerala State Planning Board in 2018 on 20 cashew processing industries found that only two factories operated for more than 180 days, while the remaining 18 industries functioned for less than 180 days, primarily due to the raw material shortages (GOK, 2018).

Physical strain and health related issues were identified as the second important constraint reported by the labourers with a Garrett score of 67.43. The key factors contributing to these issues include long working hours, with shift from 8 AM to 5 PM, prolonged sitting postures, and excessive strain on the eyes and neck during peeling and grading activities. Additionally, workers experience strain in their hands and legs during shelling and are exposed to smoke during the roasting process, all these issues contribute to their physical discomfort and health problems. A study conducted by the V.V. Giri National Labour Institute on Kerala cashew workers in 2014 reported that pain in the legs, hands, knees, neck, joints, and general body pain were the most common health issues. The severity of these

health issues was higher among female workers, who experienced these problems more frequently than their male counterparts. The study also noted that the uncomfortable sitting postures among female were a primary cause of these health conditions (GOI,2014).

Debt burden was identified as another notable challenge with a score of 51.45. The low and irregular income was the prime cause for the debt burden. The COVID-19 pandemic further aggravates the situation, as the number of working days in the industry drastically reduced. Compared to the normal year, the working days during the pandemic were reduced to 50-60. Furthermore, the shortage of raw nuts led to reduced workloads for the labourers. Since workers are paid based on piece wage rate, the reduction in the workload also adversely affect their income from the industry. To meet the daily expenses, many labourers were forced to borrow money, which further increased their debt burden. The lack of consistent income continues to hinder their ability to pay back these loans that further exacerbates their financial struggles.

Poor working conditions, with a Garrett score of 37.26 was another constraint faced by the workers. Many female labourers reported the lack of clean toilets and the improper functioning of sanitary pad vending machines. Workers in both public and private cashew processing units opined about the limited access to clean drinking water and inadequate sanitation. The working conditions were particularly worse in the private sector. Kinslin and Kumar (2022) reported that labourers in Private cashew factories faced more severe issues due to poor ventilation and unhealthy working environments. The lack of job security, welfare and retirement benefits reported as another constraint with a score of 32.91. The labourers, especially in the private factories, opined that although they are eligible for paid leave, they do not avail it due to the fear of job loss. Many labourers remain unaware of other welfare benefits they are entitled to get. Additionally, some workers expressed their concerns regarding the complicated procedures required to access these benefits. Despite these facts, workers in both public and private industries were utilizing the health benefits provided by the Employees' State Insurance (ESI) Corporation Another major constraint faced by the workers is the difficulty in balancing work and household responsibilities (24.29%). Many workers, especially women with small children or elderly parents, struggle with time constraints as they have to leave for work very early and return home late, leaving little time for household tasks and caregiving. This challenge is particularly burdensome for those managing both work and family duties.

This ranking highlights the most pressing concerns of cashew processing workers, shedding light on the areas where interventions are needed to improve their livelihoods and working conditions.

Table 2: Constraints faced by cashew processing unit labourers

Sl. No.	Constraint	Garrett's score	Garrett's ranking

1	Irregular income	74.29	I
2	Physical strain and Health issues	67.43	II
3	Debt burden	51.45	III
4	Low wage rate	50.29	IV
5	Poor working condition	37.36	V
6	Lack of job security, welfare and retirement benefits	32.91	VI
7	Difficulty in managing both work and house	24.29	VII

4. SUGGESTIONS FOR IMPROVEMENT OF CASHEW INDUSTRY SECTOR

The analysis of constraints faced by both cashew processing unit owners and labourers in Kerala reveals several critical areas for improvement that could enhance the sustainability of cashew industry.

To address the challenge of high processing costs, industry owners may invest in modern machinery and technology that enhances the efficiency and reducing the use of manual labour. Although the initial investment may be high, it can ultimately lower the operational expenses over time. A phased mechanization approach would be especially advantageous for the industry. To revive the industry the government may take suitable initiatives and ensuring consistent budget allocation for the sector. Encouraging partnerships with financial institutions to offer loans at lower interest rates for technology upgrades can ease financial burden faced by the industry owners. Similarly, offering subsidies for the purchase of machinery and the adoption of advanced technology would significantly help to reduce the processing costs. Ensuring a steady supply of quality cashew kernels is crucial for maintaining competitiveness in the global market. Promoting the cultivation of cashews in unutilized land pockets can significantly reduce the dependence on imported cashews and address raw cashew nut shortages, which eventually helps to maintain a steady supply of cashew kernel in the global market. In light of intense competition from other cashew-producing nations, industry owners may be suggested to focus more on branding of their products. In addition, the government may promote the development of high-yielding and disease-resistant cashew varieties. Promoting the unique qualities and flavours of Kerala cashews can help to capture niche markets. Similarly, participation in trade fairs and international expos may also facilitate connections with potential buyers and expand the market.

Irregular income was identified as a notable challenge by the labourers. To address this issue, the government may focus on strategies to enhance raw cashew nut production, such as promoting cultivation in untapped areas and developing high-yielding varieties. This would enable the industry owners to ensure consistent processing and create stable employment opportunities for labourers.

Improving the working conditions of cashew labourers is essential for enhancing productivity and promoting the sustainable growth of the industry. To effectively address issues related to physical strain and health, the implementation of ergonomic work practices is essential. Providing protective equipment can further safeguard workers from potential injuries and health-related risks. Investing in

better working environments, such as ensuring adequate ventilation and proper seating, will significantly reduce health risks associated with labour-intensive tasks. Moreover, it is vital to develop women-friendly work environments that address the unique challenges faced by female labourers. This holistic approach not only enhances the well-being of all workers but also fosters a more productive and sustainable workplace in the cashew processing industry.

Enhancing job security and benefits for labourers is crucial for attracting and retaining skilled workers in the cashew processing industry. Hence suitable initiatives may be taken by the government to improve the welfare of, labour such as establishing a minimum wage policy to ensure fair compensation and conducting regular inspections of private industries to enforce compliance with labour standards. Additionally, introducing retirement benefits and stable employment contracts can further promote workers' security. By prioritizing the welfare of labourers, both industry owners and the government can foster a more stable and sustainable workforce, ultimately benefiting the entire sector and contributing to its long-term viability.

Financial education for workers is also a crucial factor in addressing the debt burden faced by many labourers. Conducting programs to enhance financial literacy can empower them to make informed financial decisions, reducing financial stress. Access to credit facilities and savings programs can further support workers in managing their irregular incomes more effectively. By implementing these targeted solutions, the cashew industry in Kerala can enhance its competitiveness, ensure worker welfare, and contribute to the overall economic viability of the sector.

5. CONCLUSION

The study offers a comprehensive analysis of the key challenges faced by cashew processing workers and unit owners in Kerala, with a particular focus on Kollam district. Industry owners identified high processing costs, competition from other cashew-producing nations, and difficulties in maintaining a steady supply of cashew kernels to global markets as their primary constraints. Similarly, workers cited irregular income, physical strain, health issues, and debt burdens as their major challenges. These findings emphasize the urgent need for targeted interventions to improve the working conditions, financial stability, and overall productivity of the cashew sector.

To enhance competitiveness and sustainability, addressing high processing costs is crucial. Industry owners should be encouraged to invest in modern machinery and technology, which can increase efficiency and reduce the dependence on manual labour. Furthermore, ensuring a reliable supply of quality cashew kernels is essential for maintaining a competitive edge in the global market.For labourers, irregular income poses a significant issue. Increasing raw cashew nut production through government initiatives that promote cultivation in untapped areas and develop high-yielding varieties could help stabilize incomes. Additionally, improving working conditions by introducing ergonomic practices, providing protective equipment, and fostering healthier work environments will be critical for boosting productivity. Offering job security through minimum wage policies and stable contracts can also help attract and retain skilled labourers.

Addressing these constraints through comprehensive policy reforms, government support, and innovative industry practices is key to enhancing the sustainability and competitiveness of Kerala's cashew sector. Ultimately, these efforts will not only improve the livelihoods of workers but also strengthen the economic viability of the entire industry. This study serves as an essential resource for policymakers and stakeholders aiming to implement effective solutions that foster a resilient and prosperous cashew industry in the region.

COMPETING INTEREST

The authors declare that there is no competing interest.

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