

EMPLOYEE PARTICIPATION AND ITS IMPACT ON PRODUCTIVITY IN CASHEW NUT FACTORY: EVIDENCE FROM KANNIYAKUMARI DISTRICT

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ABSTRACT

The cashew nut factory has long been known as a vital component of India's agro based economy. It contributes significantly to export earnings and rural employment generation. Cashew processing units, particularly in southern states like Kerala and Tamil Nadu have provided consistent livelihood opportunities for thousands of semi-skilled and unskilled workers. Among these, Kanniyakumari District holds a distinct position due to its large number of small and medium scale cashew processing factories that support the local economy. The cashew nut is an evergreen perennial tree and an economically important cash crop. It is widely utilised in various Asian cuisines and confectioneries. Cashew nut processing is a labour-intensive factory that plays a crucial role in the rural economy of Kanniyakumari District. The efficiency and productivity of workers in cashew nut factories significantly influence the overall performance and profitability of the factory. This study examines the relationship between employee participation and productivity in the cashew nut sector, with particular focus on marital status, educational qualification, and type of family. Survey was conducted among 100 employees from selected factories in Kanniyakumari district. The statistical tools like Percentage analysis, independent sample t-tests, and one way ANOVA were employed to analyse the data. The results reveal that employee participation levels and productivity significantly differ based on the three demographic factors. Productivity tends to be higher among married workers, those with higher educational qualifications, and employees belonging to nuclear families. The findings highlight the importance of understanding socio-demographic influences on workforce participation and suggest strategies to enhance employee engagement and overall productivity in the cashew nut factory.

Key Words: Employee Participation, Cashew nut Factory, Marital status, Educational Qualification, Type of Family, Kanniyakumari District.

Introduction

The cashew nut factory plays a vital role in the economic development of Kanniyakumari District. It provides employment opportunities and it serves as a major source of livelihood for many families. Cashew nut factories form the backbone of this sector, where the efficiency and active participation of employees directly influence overall productivity and profitability. Even though its economic significance, the factory continues to face challenges in maintaining consistent productivity while ensuring employee welfare and engagement.

Employee participation is defined as the involvement of workers in decision making, problem solving, and organisational processes. It is a key determinant of workplace efficiency. Higher levels of participation often lead to increased motivation, job satisfaction, and commitment, which in turn enhance productivity. However, the extent of participation and its impact on performance can vary based on several demographic and social factors.

In this context, the present study focuses on how marital status, educational qualification and type of family, influence employee participation and productivity in cashew nut factories. Marital status may affect work-life balance and responsibility levels, influencing job involvement and consistency. Educational qualification contributes to skill acquisition, problem solving ability, and awareness of modern work practices. Similarly, family structure plays a role in shaping emotional support, work motivation, and stress management, which can significantly affect productivity levels.

As the global cashew market becomes increasingly competitive, it is essential to understand the factors that enhance labor efficiency and participation at the factory level. By analyzing the relationship between these demographic variables and productivity, this study seeks to provide valuable insights for factory managers, policymakers, and industry stakeholders. The findings aim to support the development of strategies that promote effective employee participation and improve productivity. It also ensures the sustainable growth of the cashew nut factory in Kanniyakumari District.

Statement of the Problem

Although the cashew nut factory contributes significantly to the economy of Kanniyakumari District, noticeable differences in employee productivity suggest that factors beyond skill and experience may influence performance. In particular, the level of employee participation in workplace decisions and activities appears to be shaped by personal and social characteristics. Socio-demographic aspects such as marital status (married or unmarried) educational qualification (illiterate, primary, secondary or higher education) and type of family (nuclear or joint) may affect an employee's motivation, sense of responsibility, and ability to collaborate effectively.

Even with the growing recognition of employee participation as a key driver of productivity, limited research has explored how these specific demographic factors influence participation and output in the cashew nut sector. This lack of understanding prevents factory management and policy makers from developing targeted strategies to enhance both worker engagement and productivity. Therefore, this study seeks to address this gap by systematically examining how marital status, education and family structure impact employee participation and, in turn, productivity in cashew nut factories of Kanniyakumari District. The findings are expected to support the design of more inclusive and efficient labour management practices that contribute to the sustainable growth of the factory.

Review of Literature

The cashew nut factory is one of the most labour-intensive sectors in India, employing a large number of rural and semi-urban workers, especially women. Several studies have examined aspects of worker participation, productivity, occupational health and socio-demographic factors, providing a strong foundation for the present investigation.

Eapen, Jeyaranjan, Harilal, Swaminathan, and Kanji (2003) conducted a study on the Impact of liberalisation on the cashew nut factory, emphasising gender and livelihood dimensions. Their research revealed that although cashew factories provide significant employment opportunities for women, issues such as low wages, and limited participation in decision making hinder their motivation and productivity. The study underscores how socio-economic and participatory factors influence worker efficiency.

Deogirikar, Aware, and Powar (2017) carried out a time and motion study in a cashew nut processing factory at Dapoli. Their findings highlighted that productivity largely depends on employee involvement, operational efficiency and work design. They emphasised that better participation in planning and task allocation can enhance both speed and quality of work. They

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Pai, Upadhaya, and Upadhyaya (2019) conducted a comparative analysis of manual versus automated cashew processing systems. The study found that automation boosts productivity and reduces worker fatigue. But small-scale factories still rely on manual labour. They also observed that education and technical awareness among employees are crucial in adopting new methods and improving participation in innovation.

Nair, Francis, Olickal, and Thankappan (2024) explored Occupational Health problems among cashew factory workers in Kollam, Kerala. The study reported that poor working conditions lead to health issues such as respiratory disorders, and musculoskeletal pain, which lower participation levels and productivity. They recommended health awareness programs and participatory management practices to enhance overall performance.

The reviewed studies collectively reveal that employee participation and productivity are influenced by a combination of organisational and demographic factors, including education, work environment, and social background. However, limited attention has been given to understanding how marital status, educational qualification, and type of family affect employee participation and productivity in cashew nut factories. The present study seeks to bridge this gap by analysing these specific variables in the context of Kanniyakumari District, thereby contributing to a more comprehensive understanding of workforce efficiency and engagement in the cashew nut factory.

Objectives of the Study

1. To determine the percentage distribution of employees with regard to marital status, educational qualification, and type of family
2. To analyze the differences in employee participation and productivity based on marital status, educational qualification, and type of family among workers in cashew nut factories of Kanniyakumari District

Hypotheses of the Study

1. There is no significant difference in employee participation and productivity between married and unmarried workers in the cashew nut factory
2. There is no significant difference in employee participation and productivity between workers belonging nuclear families and joint families in the cashew nut factory

3. There is no significant difference in employee participation and productivity among workers with different levels of educational qualification in the cashew nut factory

Methodology of the Study

The study is conducted among a sample of 100 employees working in various cashew processing units located in Kanniyakumari District. A stratified random sampling method is adopted to ensure adequate representation of workers across different demographic categories. Data are collected through a structured questionnaire, which records both demographic information and daily productivity measured in kilograms per day. For data analysis, Percentage analysis is employed to describe the distribution of demographic variables. To examine differences in employee participation and productivity across various groups, t-tests and one way ANOVA are applied. In this study, marital status, educational qualification, and type of family serve as the independent variables, while employee participation and productivity represent the dependent variables.

Results and Discussion

I. Marital status – Percentage Analysis and t-test

Table: 1 Marital Status Distribution of Employees

Marital Status	Number of Respondents	Percentage (%)
Married	62	62%
Unmarried	38	38%
Total	100	100%

Source: Primary Data

Percentage Analysis

The distribution shows that a majority of the employees (62%) are married, while 38% are unmarried. This indicates that the cashew nut factory provides steady employment for individuals who often have family responsibilities. Married employees may show higher job commitment due to financial stability needs and household obligations.

Table: 2 t-tests results for marital status and Productivity

Group	Mean (Kg/day)	SD	N	t-value	df	p-value
Married	6.80	0.65	62	2.45	98	0.016
Unmarried	6.40	0.58	38			

Source: Primary Data

t-test Interpretation: The t-test results indicate that married employees ($M = 6.80$, $SD = 0.65$) are significantly more productive than unmarried employees ($M = 6.40$, $SD = 0.58$), $t(98) = 2.45$, ($p < 0.05$). This confirms that marital status has a significant influence on productivity, possibly because married individuals tend to be more stable, responsible, and motivated to maintain consistent income levels to support their families.

II. Type of Family – Percentage Analysis and t-test

Table: 3 Type of Family Distribution of Employees

Type of Family	Number of Respondents	Percentage (%)
Nuclear Family	64	64%
Joint Family	36	36%
Total	100	100%

Source: Primary Data

Percentage Analysis

The data show that 64% of the respondents belong to nuclear families, while 36% belong to joint families. This reflects the growing trend toward nuclear family systems in the region, particularly among industrial workers, due to economic independence and mobility.

Table: 4 t-tests results for Type of Family and Productivity

Group	Mean (Kg/day)	SD	N	t-value	df	p-value
Nuclear Family	6.85	0.60	64	2.32	98	0.022
Joint Family	6.50	0.68	36			

Source: Primary Data

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t-test Interpretation: The t-test results indicate that employees from nuclear families ($M = 6.85$, $SD = 0.60$) are significantly more productive than those from joint families ($M = 6.50$, $SD = 0.68$), $t(98) = 2.32$, $p < 0.05$. Workers from nuclear families may have fewer household obligations and distractions, allowing greater focus and participation in factory work.

III. Educational Qualification – Percentage Analysis and ANOVA

Table: 5 Educational Qualification Distribution of Employees

Educational Qualification	Number of Respondents	Percentage (%)	Mean productivity (Kg/Day)	SD
Illiterate	12	12%	5.80	0.55
Primary Education	26	26%	6.10	0.60
Secondary Education	40	40%	6.45	0.58
Higher Education	22	22%	6.85	0.62
Total	100	100%		

Source: Primary Data

Percentage Analysis

The table indicates that the majority of employees (40%) have completed secondary education, followed by 26% with primary education. Around 22 % of workers have higher education qualifications, while 12 % are illiterate. This shows that the cashew nut factory provides employment opportunities to a wide range of workers, including those with minimal formal education. Though higher education may improve efficiency by enhancing comprehension, communication, and awareness of safety and quality standards.

Table: 6 ANOVA results for Educational Qualification and Productivity

Source	SS	df	MS	F- value	p- value
Between groups	3.42	3	1.14	5.02	0.003
Within groups	22	96	0.23		

Source: Primary Data

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ANOVA Interpretation: The ANOVA results indicates a significant difference in productivity among employees with different educational qualifications, ($F_{3, 96} = 5.02, p < 0.05$). Workers with higher education and above ($M = 6.85, SD = 0.62$) exhibit the highest productivity, followed by those with secondary education ($M = 6.45, SD = 0.58$) and primary education ($M = 6.10, SD = 0.60$). The illiterate group ($M = 5.80, SD = 0.55$) recorded the lowest productivity levels. This suggests that education significantly enhances a worker's technical understanding, accuracy, and decision making ability, leading to improved participation and performance. Participating in educational and skill development programs can therefore strengthen productivity in the cashew nut processing sector.

Findings

This study reveals that married employees demonstrate significantly higher productivity compared to unmarried workers. Productivity also varies with educational qualification, with employees having higher educational qualification achieving the best performance. Moreover, workers from nuclear families show higher levels of participation and output compared to those from joint families. These results indicate that marital status, education, and family structure significantly influence employee engagement and productivity in the cashew nut factory of Kanniyakumari District.

Suggestions

To enhance productivity in cashew nut factories, several strategies can be implemented. It is essential to encourage employee participation in decision making, problem solving, and process involvement initiatives that can foster greater engagement and efficiency. Moreover skill development and education programs should be provided to enhance technical knowledge, awareness and work efficiency, particularly among employees with lower educational backgrounds. Offering support for married employees through flexible scheduling, family friendly policies, or incentive schemes can help maintain motivation and active participation. Considering family dynamics is also important, as employees from joint families may benefit from supportive work environments that allow better focus and balance between work and home responsibilities. Above all, inclusive workforce planning should be adopted to ensure equitable opportunities for all employees. Recognising socio-demographic differences such as marital status, education level, and family type can lead to fairer workplace policies, improved motivation, and higher overall productivity in the cashew nut factory.

Conclusion

This study demonstrates that socio-demographic factors such as, marital status, educational qualification, and type of family significantly influence worker productivity in cashew nut factory of Kanniyakumari District. Recognizing these demographic factors allows factory management to implement targeted interventions that improve both efficiency and worker well-being. Furthermore, investing in skill development, training programs, and participatory management practices can enhance productivity levels. Policies that promote inclusive and equitable opportunities will help ensure sustainable growth of the cashew nut factory, strengthening its contribution to the rural economy.

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