

A Study on Employee Involvement and Its Impact on Organizational Efficiency at Sakthi Gear Products, Coimbatore.

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ABSTRACT

Employee involvement (EI) is an important factor of organizational efficiency, particularly in competitive manufacturing environments. This study examines employee involvement practices and their impact on organizational efficiency at Sakthi Gear Products, Coimbatore — a precision gear manufacturer with over three decades of experience. A descriptive research design was adopted; primary data were collected from 150 employees using a structured questionnaire. Statistical tools including percentage analysis, Chi-square test, Pearson correlation, and one-way ANOVA were applied. Findings reveal that over 62% of respondents were satisfied with professional growth opportunities, and 71% agreed that EI positively contributes to organizational performance. A strong positive correlation ($r = 0.977$) was found between work experience and professional growth satisfaction, and ANOVA confirmed significant age-group differences in training satisfaction ($F = 270.253$, $p < 0.05$). The study concludes that structured, inclusive involvement practices are essential for sustaining efficiency and productivity in precision manufacturing.

Keywords: Employee Involvement, Organizational Efficiency, Participative Management, Job Satisfaction, Gear Manufacturing, HRM.

1. INTRODUCTION

Employee involvement (EI) is a strategic HRM concept that positions every employee as a valued contributor to organizational success beyond task execution. It encompasses participative decision-making, problem-solving, and continuous improvement initiatives. In the manufacturing sector, leveraging collective workforce intelligence has become a critical competitive advantage.

Sakthi Gear Products, established in 1990 in Coimbatore, Tamil Nadu, is one of India's leading precision gear and ferrous alloy component manufacturers. ISO 9001:2015 certified, the company employs approximately 350 personnel across a 1,50,000 sq. ft. facility with 80 specialized CNC and grinding machines. The organization's culture formally endorses total employee participation as a cornerstone of its operational philosophy, making it an ideal case for examining EI practices and their measurable outcomes.

This study defines EI as the direct participation of employees in applying ideas, expertise, and efforts toward problem resolution and decision-making, encompassing representative participation, direct communication, and upward problem-solving mechanisms. The study aims to evaluate the level, quality, and organizational impact of EI practices at Sakthi Gear Products.

2. REVIEW OF LITERATURE

Bailey (2018), observed that securing high levels of employee involvement has become a dominant concern for HR practitioners globally, noting a divergence between academic research and practitioner application in engagement strategies.

Liu and Chen (2020), demonstrated that employee participation in quality circles significantly improved production quality, reduced wastage, and enhanced inter-departmental communication in Chinese automotive firms.

Rujit and Liemsuwan (2021), found that Employee involvement plays a major role in shaping organizational commitment levels in the automotive industry, with voice and recognition mechanisms substantially reducing turnover intentions.

Abdullah and Choudhury (2023), established that formal and informal voice mechanisms in automotive supply firms were critical to operational outcomes, reducing supervision costs and improving customer satisfaction.

Collectively, the literature affirms that EI is positively associated with productivity, quality, innovation, job satisfaction, and organizational commitment — with particular relevance in manufacturing contexts.

3. RESEARCH METHODOLOGY

Research Design: Descriptive research design was employed to interpret existing EI practices and their perceived impact on organizational efficiency.

Study Area: Sakthi Gear Products, Coimbatore, Tamil Nadu.

Sample: 150 respondents selected via convenience sampling from all functional departments including production, HR, accounts, administration, and sales.

Data Collection: Primary data were gathered through structured questionnaires administered via personal interviews. Secondary data were sourced from company records, academic journals, and published reports.

Analytical Tools: (i) Simple Percentage Analysis — for frequency distribution; (ii) Chi-Square Test (χ^2) — to assess association between categorical variables; (iii) Pearson Correlation — to examine linear relationships between continuous variables; (iv) One-Way ANOVA — to compare mean scores across multiple groups.

4. DATA ANALYSIS AND INTERPRETATION

4.1 Demographic Profile of Respondents

Table 1 presents the demographic profile of the 150 respondents. The sample comprised 54.7% female and 45.3% male employees. The largest age group was above 40 years (27.3%), and 42% held 2–5 years of experience. Foremen constituted the dominant job role (48%).

Variable	Category	Frequency (n)	Percentage (%)
Gender	Male	68	45.3
	Female	82	54.7
Age Group	Below 25 yrs	22	14.7
	25–30 yrs	30	20.0
	30–35 yrs	29	19.3
	35–40 yrs	28	18.7
	Above 40 yrs	41	27.3
Experience	2–5 years	63	42.0
	Below 1 year	28	18.7
	Above 10 yrs	20	13.3
Education	Graduation	39	26.0
	School Level	38	25.3
	PG / Others	43	28.6
Job Role	Foreman	72	48.0
	Supervisor	32	21.3
	Others	46	30.7

Table 1: Demographic Profile of Respondents | Source: Primary Data

4.2 Employee Involvement Perceptions

Table 2 summarizes employee satisfaction levels across key EI dimensions. Over 71% agreed that EI leads to better organizational performance, and 74% affirmed that it supports the achievement of organizational goals. However,

encouragement of new ideas recorded the highest dissatisfaction rate (36.7%), indicating a critical gap requiring managerial attention.

Variable	Highly Satisfied / SA (%)	Satisfied / Agree (%)	Neutral (%)	Dissatisfied / DA (%)
Professional Growth Opportunities	19.3	42.7	17.3	20.6
Job-Related Training	38.7	24.0	13.3	24.0
Idea-Sharing at Workplace	24.0	45.3	15.3	15.3
Encouragement of New Ideas	18.7	31.3	13.3	36.7
EI Leads to Better Performance	35.3	36.0	16.7	12.0
EI Contributes to Org. Goals	34.7	39.3	13.3	12.7

Table 2: Employee Perceptions on Key Involvement Dimensions | Source: Primary Data

4.3 Statistical Analysis

Three inferential tests were conducted to examine relationships among key variables. Results are summarized in Table 3.

Test	Variables	Statistic	p-value	Result
Chi-Square (χ^2)	Edu. Qualification ↔ Idea Implementation	$\chi^2 = 209.2, df = 8$	0.000	Significant – H ₀ Rejected
Pearson Correlation (r)	Work Experience ↔ Professional Growth Satisfaction	$r = 0.977$	0.000	Strong Positive Correlation
One-Way ANOVA	Age Group ↔ Job-Related Training Satisfaction	$F(4,145) = 270.253$	0.000	Significant – H ₀ Rejected

Table 3: Summary of Statistical Test Results | Source: Primary Data

Chi-Square Test: The test revealed a statistically significant association between employees' educational qualification and their perception of idea implementation ($\chi^2 = 209.2, df = 8, p = 0.000$). The null hypothesis is rejected; employees with higher educational levels held more defined views on whether their ideas are acted upon. The Gamma coefficient of 1.000 confirms a perfect ordinal association.

Pearson Correlation: A strong positive correlation ($r = 0.977, p < 0.01$) was found between years of work experience and satisfaction with professional growth opportunities, corroborated by Spearman's rho (0.984) and Kendall's tau-b (0.969). This indicates that tenure-based recognition is a meaningful EI dimension.

One-Way ANOVA: Significant differences were found across age groups in satisfaction with job-related training [$F(4, 145) = 270.253, p = 0.000$]. Younger employees generally expressed higher training satisfaction, underscoring the need for age-differentiated training strategies.

5. FINDINGS

The following key findings emerged from the study:

- (i) A majority of respondents (62%) expressed satisfaction with professional growth opportunities, and 62.7% were satisfied with job-related training programs.
- (ii) 69.3% of respondents were satisfied with idea-sharing platforms, but only 29.3% indicated their ideas are consistently implemented — 42.7% reported this happens only sometimes.
- (iii) Over 71% agreed that EI leads to better organizational performance; 74% affirmed it supports organizational goal achievement.

(iv) Team meetings were rated effective or very effective by 70.7% of respondents, making them the most impactful EI channel.

(v) 13.3% of employees reported their participation is never recognized, signalling a need for structured recognition mechanisms.

(vi) Statistical analyses confirmed: educational background influences idea implementation perceptions ($\chi^2 = 209.2$, $p < 0.05$); work experience strongly predicts professional growth satisfaction ($r = 0.977$); and age significantly moderates training satisfaction ($F = 270.253$, $p < 0.05$).

6. SUGGESTIONS

Formalize Suggestion Systems: A structured suggestion management system — combining digital platforms, physical channels, and timely feedback — should be institutionalized. Incentive mechanisms such as monetary rewards and recognition awards can enhance participation.

Enhance Responsiveness to Ideas: Given that 42.7% of employees feel their ideas are only sometimes implemented, management must establish transparent evaluation criteria, realistic timelines, and consistent communication of outcomes to sustain motivation.

Age-Differentiated Training: Tailored training modules aligned with career stages and learning needs of distinct age cohorts — particularly employees above 40 years — would improve perceived training relevance and EI effectiveness.

Strengthen Recognition Programs: A structured reward framework encompassing supervisory commendations, peer recognition, and organizational awards should be implemented to reinforce an inclusive culture of involvement.

Leverage Team Meetings: Regular, agenda-driven team meetings with documented follow-up actions should be sustained as primary channels for collective problem-solving and organizational learning.

7. CONCLUSION

This study provides empirical evidence that employee involvement is a significant determinant of organizational performance at Sakthi Gear Products, Coimbatore. The majority of respondents affirmed the value of EI for performance and goal achievement. However, gaps in idea implementation and employee recognition indicate that formal involvement mechanisms require strengthening.

Statistical analyses confirm that work experience is a strong predictor of professional growth satisfaction, educational background influences idea implementation perceptions, and age moderates training satisfaction. These findings have direct implications for designing targeted, inclusive HRM strategies in the manufacturing sector.

Organizations in the precision engineering and gear manufacturing sector can significantly enhance operational performance, employee retention, and competitive positioning by adopting a systematic, institutionalized approach to employee participation. Future research may extend this framework to multi-firm comparative analyses across Tamil Nadu's manufacturing clusters or examine the longitudinal impact of specific EI interventions on efficiency metrics.

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