

Impact on Work Environment on Employee Satisfaction in Manufacturing Industry

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Abstract

The work environment plays a vital role in shaping employee satisfaction, particularly in the manufacturing sector where workforce stability and performance are closely linked. This study investigates the relationship between various components of the work environment such as job security, relationships with superiors and colleagues—and overall employee satisfaction. Primary data was collected from 215 respondents in a manufacturing organization using a structured questionnaire. Statistical analyses including correlation, ANOVA, and multiple regression were applied. The results indicate that job security and peer relationships significantly influence employee satisfaction, while managerial relationships, though positive, have a lesser effect. Additionally, satisfaction related to recognition varies across salary groups. These findings highlight the importance of fostering a supportive, secure, and inclusive work environment to enhance employee morale and organizational success.

Keywords: Work environment, Employee satisfaction, Job security, Workplace relationships, Manufacturing sector

1. Introduction

Employee satisfaction is a vital driver of organizational success, especially in the manufacturing sector, where operational efficiency and product quality depend heavily on a motivated and stable workforce. Among the various factors influencing satisfaction, the work environment plays a central role. A safe, supportive, and well-structured workplace not only ensures employee well-being but also enhances retention, performance, and overall engagement. The work environment includes both physical conditions—such as safety, lighting, noise control, and cleanliness—and psychological aspects like leadership style, communication, recognition, and interpersonal relationships. A well-balanced environment fosters employee morale, reduces absenteeism, and encourages loyalty.

However, challenges such as poor working conditions, lack of recognition, and ineffective grievance mechanisms can lead to dissatisfaction and disengagement. Organizations must therefore take a proactive approach to shaping environments that meet both operational needs and employee expectations and it focuses on analyzing how different components of the work environment affect employee satisfaction in manufacturing units. It examines factors such as physical infrastructure, workplace relationships, job security, motivation, and career growth opportunities. Understanding these linkages can help organizations build a more engaged and productive workforce. The manufacturing sector remains a cornerstone of economic development and industrial growth. Within this environment, employee satisfaction is increasingly recognized as a vital contributor to organizational success. High levels of employee satisfaction are linked to improved productivity, enhanced morale, reduced absenteeism, and stronger employee retention. In labor-intensive and process-driven industries such as manufacturing, a supportive and well-structured work environment plays a crucial role in shaping employee experiences and outcomes.

1.1 Objectives

- To study the overall impact of the work environment on employee satisfaction within the organization.
- To examine the relationship between superiors and colleagues in teamwork and its influence on employee job security.

1.2 Research Question, Hypothesis, and Approach

This study seeks to answer the question:

"What is the impact of the work environment on employee satisfaction in a manufacturing organization?"

To address this, the study tests the following hypothesis:

- **H₀:** There is no significant relationship between the work environment and employee satisfaction.
- **H₁:** There is a significant relationship between the work environment and employee satisfaction.

The research evaluates a wide range of variables including physical conditions, supervisory relationships, motivation, salary, welfare services, job security, grievance mechanisms, appraisal systems, training opportunities, management practices, and career development. A structured questionnaire is used, and statistical tools such as correlation and regression are applied to analyze the data and validate the hypothesis.

1.3 Background

Employee satisfaction is a critical factor in achieving organizational success, especially within the manufacturing industry, where operational efficiency and product quality are directly linked to workforce stability and engagement. The work environment plays a central role in influencing satisfaction, encompassing both physical conditions—such as safety, cleanliness, and ergonomics—and psychological aspects like leadership, communication, and interpersonal relationships. A well-designed work environment fosters motivation, reduces absenteeism, and enhances employee retention. Conversely, poor working conditions, lack of recognition, and ineffective management practices can lead to dissatisfaction, lower morale, and high turnover rates.

1.4 Motivation

The motivation behind this study stems from the growing need to understand how different elements of the work environment impact employee satisfaction in the manufacturing sector. As companies strive to remain competitive and productive, it becomes essential to identify the key workplace factors that influence employee attitudes and performance. This research aims to provide empirical insights into the relationship between work environment variables—such as job security, relationships with superiors and colleagues and employee satisfaction. The findings are intended to help organizations develop targeted strategies to enhance job satisfaction, improve workplace culture, and achieve long-term operational success.

2. Literature reviews

The importance of the work environment in shaping employee satisfaction has been highlighted across several studies. Abdul Raziq and Maulabakhsh (2014) emphasized that a supportive physical environment enhances job satisfaction and productivity. This is further supported by Bakotić and Babić (2013), who found that harsh working conditions significantly lowered satisfaction among employees. Basalamah and Ajmal (2021) explored how work motivation and environment jointly influence job satisfaction, particularly in academic settings. Budie et al. (2018) took a need-based approach to understanding how the physical work environment affects employee satisfaction, emphasizing the role of tailored workspace design. Interpersonal relationships also play a crucial role, as noted by Wińska (2016), who identified superior-subordinate communication as a key factor in employee morale. Bakar and Mustaffa (2020) extended this idea by showing that communication quality can mediate group commitment and workplace satisfaction. Ismail (2014) conducted an ergonomic study within the automotive industry and concluded that physical design and posture significantly influence comfort and job satisfaction. Matzler and Renzl (2006) investigated interpersonal trust and found it to be a strong predictor of both satisfaction and loyalty. Rabia Imran et al.

(2015) linked job security and organizational justice to higher productivity through enhanced satisfaction. Schmidt (2007) underscored the positive correlation between satisfaction with workplace training and overall job satisfaction, suggesting that skill development initiatives can uplift morale. Syafii and Ajmal (2021) reaffirmed the value of recognition and motivation in building satisfaction. Finally, Vasudevan (2014) examined the role of training and found that when aligned with employee development needs, it can significantly boost job satisfaction and organizational effectiveness

3. Materials and methodology

The primary data for this study was collected using a structured questionnaire designed specifically to assess employee satisfaction and various aspects of the work environment. The study was conducted in a single manufacturing organization A sample of 215 respondents (111 operators and 104 staff members) was selected using a stratified random sampling technique to ensure representative inclusion across job roles and departments in 5 point Likert scale and methods used Correlation, ANOVA, Multiple Regression Analysis.

4. Analysis and interpretation

Table 4.1-mean Descriptive statistics

	Mean(min,max)	Std. deviation
Working environment	4.54(3,5)	0.4314
Relationship with superiors	4.45(3,5)	0.4193
Relationshipwithcolleagues	4.38(3,5)	0.5036
Motivation and recognition	4.45(3,5)	0.462
Salary	4.40(3,5)	0.4487
Job security	4.47(3,5)	0.4402
Training	4.43(3,5)	0.4023
Individual growth	4.49(3,5)	0.4193
Employee satisfaction	4.49(3,5)	0.425

The table shows that all measured factors have high mean scores (ranging from 4.38 to 4.54), indicating strong employee satisfaction across the board. The highest rating is for the working environment ($M = 4.54$), followed closely by individual growth and overall employee satisfaction (both $M = 4.49$). The lowest, though still positive, is the relationship with colleagues ($M = 4.38$). Standard deviations are generally low (0.40–0.50), suggesting consistent responses. The greatest variability is seen in the relationship with colleagues ($SD = 0.5036$), while training and individual growth show the most agreement ($SD = 0.4023$ and 0.4193 , respectively).

Table 4.2 One way anova between Employees' Satisfaction & Salary Ranges

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	4.097	3	2.048	6.574	.002
Within Groups	33.651	108	.312		
Total	37.748	111			

A one-way Analysis of Variance (ANOVA) was conducted to determine whether there were statistically significant

differences in employee satisfaction specifically regarding the statement *"I feel satisfied knowing that my contributions are recognized"* across different salary groups (low, medium, and high). The results indicated a significant effect of salary range on employee satisfaction, $F(3, 108)$

= 6.574, $p = 0.002$. Since the p-value is less than the conventional alpha level of 0.05, it can be concluded that **employee satisfaction levels differ significantly among the salary groups**. This finding suggests that the perception of recognition and satisfaction is influenced by the employees' compensation level.

Correlation

Table 4. 3 . Relationship between Employee Satisfaction and Workplace Factors

Study variable		RS	RC	JS	ES
Relationship with	Correlation Coefficient	1.000			
superiors (RS)	Sig. (2-tailed)	.			
Relationship with colleagues (RC)	Correlation Coefficient	.511**	1.000		
	Sig. (2-tailed)	.000	.		
Job security (JS)	Correlation Coefficient	.242*	.477**	1.000	
	Sig. (2-tailed)	.011	.000	.	
Employee satisfaction(ES)	Correlation Coefficient	.366**	.421**	.405**	1.000
	Sig. (2-tailed)	.000	.000	.000	.
**. Correlation is significant at the 0.01 level (2-tailed).					
*. Correlation is significant at the 0.05 level (2-tailed).					

The correlation analysis reveals significant positive relationships between employee satisfaction and all three workplace factors: relationship with superiors ($r = .366$, $p < .01$), relationship with colleagues ($r = .421$, $p < .01$), and job security ($r = .405$, $p < .01$). These findings suggest that improvements in these areas are associated with higher employee satisfaction. Additionally, moderate positive correlations are observed among the independent variables themselves, with the strongest being between relationship with superiors and colleagues ($r = .511$, $p < .01$). All correlations are statistically significant, indicating meaningful associations among the variables.

Table 4.4 Impact of Job Security and Workplace Relationships on Employee satisfaction

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	1.973	.459		4.297	.000
Relationship with superiors	.169	.100	.171	1.693	.093
Relationship with colleagues	.187	.093	.222	2.009	.047

Job security	.212	.093	.220	2.283	.024
a. Dependent Variable: Employee satisfaction					

The regression analysis examines the impact of job security and workplace relationships on employee satisfaction. The model is statistically significant ($p < .001$), with the constant term ($B = 1.973$, $t = 4.297$)

indicating a baseline level of satisfaction. Among the predictors, **job security** ($B = .212$, $p = .024$) and **relationship with colleagues** ($B = .187$, $p = .047$) have a significant positive impact on employee satisfaction. **Relationship with superiors** shows a positive but non-significant effect ($B = .169$, $p = .093$). These results suggest that while all workplace factors contribute positively, job security and peer relationships are the most influential in predicting employee satisfaction.

Findings

- High Overall Satisfaction:** Descriptive statistics indicate high satisfaction levels across various workplace factors, with the working environment receiving the highest mean score ($M = 4.54$), followed by individual growth and employee satisfaction (both $M = 4.49$).
- Significant Correlations:** The correlation analysis revealed significant positive relationships between employee satisfaction and: Relationship with colleagues ($r = .421$, $p < .01$), Job security ($r = .405$, $p < .01$), Relationship with superiors ($r = .366$, $p < .01$).
- Regression Results:** Multiple regression analysis showed that: Job security ($\beta = .220$, $p = .024$) and relationship with colleagues ($\beta = .222$, $p = .047$) significantly predict employee satisfaction. Relationship with superiors had a positive but non-significant impact ($p = .093$).
- Salary and Recognition:** ANOVA results confirmed that employee satisfaction related to recognition varies significantly across salary groups ($F = 6.574$, $p = .002$), suggesting that compensation influences perceptions of recognition and satisfaction and overall There is a **significant positive relationship** between the work environment and employee satisfaction in the organization studied. Hence, the **null hypothesis is rejected**.

Discussion

- Strengthen Peer Relationships:** Since relationships with colleagues significantly impact satisfaction, initiatives like team-building activities and collaborative projects should be promoted.
- Enhance Job Security Measures:** Organizations should communicate long-term employment prospects clearly and foster a sense of stability to improve satisfaction.
- Improve Managerial Communication:** Although the relationship with superiors showed a weaker effect, managerial training in communication and leadership could enhance this area.
- Recognition Across All Salary Levels:** Develop structured recognition programs that ensure employees at all salary levels feel valued for their contributions.
- Sustain a Positive Work Environment:** Continue maintaining a safe, clean, and motivating workplace, as it is the highest-rated factor influencing satisfaction.

Conclusion

This study confirms that the work environment significantly influences employee satisfaction in the manufacturing sector. Among various factors, job security and collegial relationships emerged as the most significant predictors of satisfaction. While managerial relationships also play a role, their impact was less pronounced. The findings underscore the importance of fostering a supportive work culture, enhancing job stability, and recognizing employee contributions across all levels. By addressing these areas, manufacturing organizations can boost employee morale, productivity, and retention, ultimately contributing to overall organizational success.

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