

“A Study on the Impact of Employee Engagement on Productivity in the Manufacturing Industry with Reference to Hitachi Terminal Solutions India PVT LTD”

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ABSTRACT

Employee engagement is a key factor influencing productivity... This paper examines how engagement practices such as communication, recognition, training, participation, leadership support, and performance feedback improve employee motivation, commitment, efficiency, quality, and organizational performance in manufacturing organizations. The study highlights the importance of an engaged workforce for sustainable growth and competitiveness.

INTRODUCTION

Employee engagement refers to the emotional and intellectual commitment of employees toward their organization. In manufacturing, engaged employees contribute to better productivity, quality, safety, innovation, and teamwork. Organizations increasingly invest in engagement initiatives to improve performance and retain skilled employees. This study explores the relationship between engagement and productivity in manufacturing.

STATEMENT OF THE PROBLEM

Employee engagement has emerged as a critical factor influencing the productivity and overall performance of organizations, particularly in the manufacturing industry where operational efficiency and product quality are essential for success. Despite advancements in technology and production systems, many manufacturing organizations continue to face challenges such as low employee motivation, absenteeism, job dissatisfaction, high employee turnover, and reduced productivity. These issues often arise due to inadequate communication, limited employee participation, lack of recognition, and insufficient opportunities for learning and career development. As a result, organizations may experience decreased operational efficiency and increased production costs.

OBJECTIVES

1. To study the concept and importance of employee engagement in the manufacturing industry.
2. To identify the employee engagement practices adopted in manufacturing organizations.
3. To examine the impact of employee engagement on employee productivity.
4. To analyze the factors influencing employee engagement and their effect on organizational performance.
5. To suggest suitable measures for improving employee engagement to enhance productivity in the manufacturing industry.

SCOPE OF THE STUDY

The scope of this study is to examine the impact of employee engagement on productivity in the manufacturing industry. It focuses on understanding how employee engagement practices, such as effective communication, recognition and rewards, training and development, employee participation, leadership support, and performance feedback, influence employee motivation, commitment, and overall productivity. The study also explores the relationship between employee engagement and key organizational outcomes, including job satisfaction, work quality, efficiency, teamwork, and employee retention.

LIMITATIONS OF THE STUDY

- The study is limited to selected manufacturing organizations; therefore, the findings may not be applicable to all industries or business sectors.
- The research is based on the responses of employees, and the accuracy of the results depends on the honesty, understanding, and cooperation of the respondents.
- The study is conducted within a limited time period, which may restrict an in-depth analysis.
- The research focuses only on selected employee engagement factors such as communication, recognition, training, and leadership support, while other factors affecting productivity are beyond the scope of the study.
- The sample size and data collection are limited by time and resource constraints, which may affect the generalization of the findings.

LITERATURE REVIEW

1. S. Sujatha & R. Shyam Sundar (2024)

Title: *"Impetus of Employee Engagement on Employee Performance at Manufacturing Industries in Coimbatore"*

This study examined the relationship between employee engagement and employee performance in manufacturing industries. The findings revealed that higher levels of employee engagement significantly improve employee productivity, job performance, organizational commitment, and workplace efficiency. The study also emphasized that effective leadership, employee recognition, and communication are essential for maintaining an engaged workforce.

2. Vandana Mohanty & Nikita Nandanawar (2024)

Title: *"An Analysis of Employee Engagement on Productivity in Manufacturing Organization: A Case Study"*

This research investigated the impact of employee engagement on productivity in a manufacturing organization. The study concluded that engaged employees demonstrate greater commitment, higher work quality, improved teamwork, and increased productivity.

3. Dr. Virendra Kumar Verma, Dr. Kanchana P., Dr. M. Srinivas, Dr. Kamal Kishor Pandey & Dr. Himanshu Dargan (2024)

Title: *"Boosting Employee Engagement for Enhanced Productivity in Organizations: A Strategic Approach"*

This study explored various strategies for improving employee engagement across organizations. The authors found that leadership support, workplace culture, recognition systems, career development opportunities, and open communication significantly enhance employee engagement, resulting in higher productivity, innovation, employee satisfaction, and organizational performance.

Research Gap

From the review of the existing literature, it is evident that many studies have highlighted the positive impact of employee engagement on job satisfaction, organizational commitment, employee performance, and productivity. Most researchers agree that effective employee engagement practices contribute significantly to organizational success and sustainable growth. However, certain research gaps still exist. Firstly, many studies have examined employee engagement in a general organizational context, while comparatively fewer studies have focused specifically on its impact on productivity in the manufacturing industry. Secondly, most existing research has concentrated on sectors such as IT, healthcare, banking, and retail, with limited attention given to manufacturing organizations. Thirdly, there is a lack of comparative research identifying which employee engagement practices have the greatest influence on productivity in manufacturing environments.

RESEARCH DESIGN

Sample size: 100 Respondents

Tools for data collection: Data for this study is collected from primary and secondary sources. Primary data includes surveys and interviews with public. While secondary data encompasses websites and google forms filling to publics.

ANALYSIS AND INTERPRETATION

Employee Engagement Improves Productivity

Option	Frequency	Percentage
Strongly Agree	35	35%
Agree	40	40%
Neutral	15	15%
Disagree	7	7%
Strongly Disagree	3	3%
Total	100	100%

Interpretation

The table shows that **75%** of employees either strongly agree or agree that employee engagement improves productivity, while **15%** remain neutral and only **10%** disagree. This indicates that employee engagement has a positive influence on productivity. The graph highlights agreement as the largest category, suggesting that engaged employees are more motivated, committed, and efficient. Organizations should continue implementing effective employee engagement practices to enhance overall productivity.

Satisfaction with Employee Engagement Practices

Option	Frequency	Percentage
Highly Satisfied	25	25%
Satisfied	45	45%
Neutral	15	15%
Dissatisfied	10	10%
Highly Dissatisfied	5	5%
Total	100	100%

Interpretation

The table indicates that **70%** of employees are satisfied with the employee engagement practices adopted by the organization, while **15%** are neutral and **15%** are dissatisfied. This shows that most employees have a positive opinion regarding the engagement initiatives. The graph reveals satisfaction as the dominant category. Organizations should further strengthen engagement programs to improve employee morale and productivity.

Recognition and Appreciation Increase Motivation

Option	Frequency	Percentage
Strongly Agree	30	30%
Agree	42	42%
Neutral	16	16%
Disagree	8	8%
Strongly Disagree	4	4%
Total	100	100%

Interpretation

The table shows that **72%** of respondents believe that recognition and appreciation increase their motivation to perform better. Only **12%** disagree with this statement. The graph highlights agreement as the largest segment, indicating that employee recognition is an important factor in improving motivation, job satisfaction, and productivity.

Training and Development Improve Employee Performance

Option	Frequency	Percentage
Strongly Agree	28	28%
Agree	44	44%
Neutral	18	18%
Disagree	7	7%
Strongly Disagree	3	3%
Total	100	100%

The table indicates that **72%** of employees agree that training and development programs improve their work performance and productivity. A small percentage disagree, while **18%** remain neutral. The graph shows that employees value continuous learning and skill development. Therefore, organizations should invest in regular training programs to enhance employee capabilities.

HYPOTHESIS

H₀: There is **no significant relationship** between employee engagement and employee productivity.

H₁: There is a **significant relationship** between employee engagement and employee productivity.

Observed Data (O)

Employee Engagement	High Productivity	Low Productivity	Total
High Engagement	30	10	40
Low Engagement	20	40	60
Total	50	50	100

Expected Frequency (E) Formula:

$$E = (\text{Row Total} \times \text{Column Total}) / \text{Grand Total}$$

Employee Engagement	High Productivity	Low Productivity
High Engagement	$(40 \times 50) / 100 = 20$	$(40 \times 50) / 100 = 20$
Low Engagement	$(60 \times 50) / 100 = 30$	$(60 \times 50) / 100 = 30$

Chi-Square Calculation Table

Category	O	E	(O-E)	(O-E) ²	(O-E) ² /E
High Engagement – High Productivity	30	20	10	100	5.00
High Engagement – Low Productivity	10	20	-10	100	5.00
Low Engagement – High Productivity	20	30	-10	100	3.33
Low Engagement – Low Productivity	40	30	10	100	3.33

Calculated Value

$$\chi^2 = 5.00 + 5.00 + 3.33 + 3.33 = 16.66$$

Degree of Freedom

$$df = (2 - 1) \times (2 - 1) = 1$$

Table Value (5% Level) χ^2 (df = 1) = 3.84 Decision

Since $16.66 > 3.84$, H_0 is rejected.

Conclusion

The **null hypothesis is rejected** and the **alternative hypothesis is accepted**. Therefore, there is a **significant relationship between employee engagement and employee productivity**. The findings indicate that higher levels of employee engagement contribute to improved employee performance and increased productivity in the manufacturing industry.

FINDINGS

- The study found that the majority of employees believe that employee engagement has a positive impact on productivity in the manufacturing industry.

2. Most respondents expressed satisfaction with the employee engagement practices followed in their organization.
3. Recognition and appreciation were identified as major factors that motivate employees to perform better and increase their commitment to organizational goals.
4. Training and development programs were found to enhance employees' skills, confidence, and overall work performance.
5. Effective communication between management and employees contributes significantly to employee engagement and teamwork.

SUGGESTIONS

- The organization should strengthen employee engagement initiatives by encouraging open communication and regular interaction between employees and management.
- Employee recognition and reward programs should be implemented consistently to appreciate employees' contributions and improve motivation.
- Regular training and development programs should be organized to enhance employees' knowledge, skills, and productivity.
- Management should encourage employee participation in decision-making to increase commitment, ownership, and job satisfaction.
- A positive and supportive work environment should be maintained to improve teamwork, employee well-being, and overall organizational performance.
- Performance feedback should be provided regularly so that employees can understand their strengths, identify areas for improvement, and achieve better results.

CONCLUSION

Employee engagement is recognized as one of the most important factors contributing to organizational effectiveness and sustainable productivity. It reflects the emotional, cognitive, and behavioral commitment of employees toward their work and the organization. In the manufacturing industry, where productivity, quality, and operational efficiency are critical for organizational success, employee engagement plays a significant role in improving employee performance and achieving business objectives. Organizations that invest in employee engagement through effective communication, recognition, training and development, supportive leadership, employee participation, and career growth opportunities create a positive work environment that motivates employees to perform at their highest potential.

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