

A Study on Impact of HR Practices on Labour Productivity at Emox Manufacturing Pvt. Ltd

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Abstract- *This study investigates the impact of Human Resource (HR) practices specifically recruitment, training, performance appraisal, and employee welfare on labour productivity at Emox Manufacturing Pvt. Ltd., Puducherry. Employing a descriptive and analytical research design, primary data were collected from a sample of 100 employees selected through stratified random sampling, using a structured questionnaire. The data were analysed using descriptive statistics, Pearson's correlation, and multiple linear regression techniques. The findings revealed a highly positive employee perception of existing HR practices and established a significant positive relationship and impact of all four HR practices on labour productivity. The study concludes that HR practices at Emox serve as a strategic driver of labour productivity, reinforcing the role of HRM as a core partner in achieving operational excellence and suggesting that continued investment in these areas will directly enhance employee output and organizational performance.*

Keywords- Human Resource Practices, Labour Productivity, Recruitment, Training, Performance Appraisal, Employee Welfare, HRM, Manufacturing Industry, Organizational Performance, Emox Manufacturing Pvt. Ltd., Puducherry

I. INTRODUCTION

In today's dynamic business environment, Human Resource Management (HRM) has evolved from an administrative function into a strategic partner that drives organizational success. Effective management of human capital is now recognized as a key determinant of productivity, innovation, and profitability. The performance of any organization largely depends on how well it recruits, develops, motivates, and supports its workforce, especially in manufacturing sectors where efficiency and coordination are vital.

HRM encompasses core functions such as recruitment and selection, training and development, performance appraisal, compensation, and employee welfare. These practices aim to align employee performance with

organizational goals while enhancing satisfaction and well-being. Among the most measurable outcomes of HRM is labour productivity—the efficiency of human effort in generating output. In manufacturing, even small inefficiencies in employee performance can cause production delays and cost overruns, making HR practices critical for sustaining competitiveness.

Each stage of the employee lifecycle from recruitment to appraisal directly or indirectly influences productivity. Well-structured recruitment ensures job person fit, while continuous training equips employees with updated skills. Transparent appraisal systems enhance motivation, and welfare programs foster commitment and morale. However, the success of HR practices depends not only on their design but also on employee perceptions of fairness, communication, and support.

The AMO (Ability–Motivation–Opportunity) model reinforces that productivity improves when employees possess the ability through training, are motivated through appraisals and rewards, and are given opportunities to perform effectively. Thus, HR practices must function as an integrated system rather than isolated initiatives.

In the Indian manufacturing context, initiatives such as *Make in India* and *Skill India* have highlighted the need for skilled, motivated, and well-managed labour. While technology and automation enhance efficiency, human factors remain central to innovation and adaptability. To remain competitive, organizations must continuously assess and refine their HR systems to meet employee expectations and align with business goals.

In conclusion, HRM plays a strategic role in shaping employee performance and organizational success. Effective HR practices particularly recruitment, training, performance appraisal, and employee welfare serve as key drivers of labour productivity, operational excellence, and long-term growth.

II. OBJECTIVES OF THE STUDY

- To analyse the demographic profile of employees at Emox Manufacturing Pvt. Ltd.
- To evaluate the perception of employees regarding existing HR practices such as recruitment, training, performance appraisal, and employee welfare.
- To examine the relationship between HR practices and the labour productivity of the employees.
 - To measure the impact of various HR practices on labour productivity.

III. REVIEW OF LITERATURE

Chandan Ghosh & Dr. J.K. Bhatia (2024):

Their study on Indian industries examined how recruitment planning, training, and performance appraisal influence productivity. The authors found that consistent and proactive HR practices enhance employee engagement, reduce turnover, and improve overall efficiency.

Dr. V. Basil Hans & Dr. Yogita K.S. (2024):

This research highlighted that even basic HR practices like attendance systems, safety training, and welfare schemes in rural and semi-urban sectors lead to noticeable improvements in labour efficiency and productivity.

Gangadharswamy V & Dr. Mahesha V (2024):

The study conducted on employees of the Karnataka State Road Transport Corporation (KSRTC) highlighted that effective human resource planning plays a crucial role in enhancing labour productivity. The authors emphasized that systematic forecasting of manpower needs and aligning HR strategies with organizational objectives lead to improved employee performance, higher efficiency, and better service delivery.

Ms. Sharmila Fernandes, Ms. Himresha Bhatt & Dr. Santhosh Kumar V (2022):

Their research in the IT sector showed that gender-inclusive HR policies such as maternity benefits, work-from-home options, and emotional wellness programs improve retention, motivation, and productivity among women employees.

IV. RESEARCH METHODOLOGY

Research Design:

This study employs a descriptive and analytical research design to examine how HR practices influence labour productivity at Emox Manufacturing Pvt. Ltd., Puducherry. The descriptive design explains employee demographics and perceptions, while the analytical design identifies relationships and measures the impact of HR practices on productivity.

Data Collection:

- **Primary Data:** Collected through a structured questionnaire covering recruitment, training, performance appraisal, employee welfare, and labour productivity using a five-point Likert scale.
- **Secondary Data:** Obtained from books, journals, company reports, and reliable online sources to support the study.

Sampling Method:

- **Population:** The total population consisted of **350 employees** working at the E-MOX Manufacturing Pvt. Ltd. unit in Sedarapet, Puducherry.
- **Sample Size:** A sample of 100 employees was selected for the study using the stratified random sampling method.

Statistical Tools:

The collected data was analyzed using the Statistical Package for the Social Sciences (SPSS). The tools used included descriptive statistics (frequency, mean analysis), Pearson's correlation analysis, multiple linear regression analysis

V. DATA ANALYSIS AND INTERPRETATION

1) CORRELATION ANALYSIS:

HR Practices and Labour Productivity

Aim: To determine the relationship between key HR practices Recruitment, Training, Performance Appraisal, and Employee Welfare and Labour Productivity.

HYPOTHESIS:

1.NULL HYPOTHESIS (H₀):There is no significant relationship between HR practices and labour productivity.

2.ALTERNATIVE HYPOTHESIS (H₁):There is a significant relationship between HR practices and labour productivity.

Variables	Recruitment	Training	Performance Appraisal	Employee Welfare	Labour Productivity
Recruitment	1	0.472	0.398	0.356	0.421
Training	0.472	1	0.436	0.392	0.489
Performance Appraisal	0.398	0.436	1	0.411	0.457
Employee Welfare	0.356	0.392	0.411	1	0.438
Labour Productivity	0.421	0.489	0.457	0.438	1

INTERPRETATION:

The Pearson correlation results indicate that all HR practices show a positive relationship with labour productivity. Training ($r = 0.489$) demonstrates the strongest correlation, followed by Performance Appraisal ($r = 0.457$), Employee Welfare ($r = 0.438$), and Recruitment ($r = 0.421$).

INFERENCE:

Since all correlations are positive and significant at $p < 0.01$, the null hypothesis (H₀) is rejected. Thus, there is a significant positive relationship between HR practices and labour productivity among employees at E-MOX Manufacturing Pvt. Ltd.

2)REGRESSIONANALYSIS:

Impact of HR Practices on Labour Productivity

Aim:To measure the combined and individual impact of HR practices Recruitment, Training, Performance Appraisal, and Employee Welfare on Labour Productivity.

HYPOTHESIS:

1.NULL HYPOTHESIS (H₀):HR practices have no significant impact on labour productivity.

2.ALTERNATIVE HYPOTHESIS (H₁):HR practices have a significant impact on labour productivity.

Model	R	R Square	F	Sig.(p-value)
1	0.812	0.659	93.83	0.0

a. Predictors: (Constant)Recruitment, Training, Performance Appraisal, Employee Welfare b. Dependent Variable: Labour Productivity

INTERPRETATION:

The regression model ($R^2 = 0.659$) explains 65.9% of the variation in labour productivity, with a high F-value of 93.83 and $p < 0.001$, confirming the model's significance. All HR practices have positive and statistically significant coefficients, indicating they each contribute meaningfully to improving labour productivity.

INFERENCE:

The null hypothesis (H₀) is rejected. The analysis confirms that Recruitment, Training, Performance Appraisal, and Employee Welfare significantly and positively influence labour productivity at Emox Manufacturing Pvt. Ltd.

VI. FINDINGS

- The analysis reveals that the organization's workforce is predominantly male, yet female employees still represent a notable and significant portion of the staff.
- The analysis indicates the workforce is predominantly composed of middle-aged and older employees, suggesting a mature and experienced staff. Relatively fewer younger workers are present within the organization.
- Findings indicate that the workforce is mainly composed of employees with Diploma and IT qualifications, reflecting a technically skilled staff, while comparatively fewer possess basic schooling qualifications or advanced university degrees.
- The workforce is primarily concentrated in the Blowing and Filling departments, marking them as key operational areas, while staffing in Molding, Printing, and Stores & Dispatch remains balanced but comparatively smaller.
- The organization's workforce is largely engaged in operational activities, reflecting a strong shop-floor

presence, while only a small proportion hold supervisory or managerial roles, indicating a clear hierarchical structure.

- The staff is predominantly composed of experienced individuals, indicating a stable workforce with long service tenure, while only a small number of employees are new or have limited experience in the organization.
- Employees exhibit a positive perception of the organization's HR practices, particularly in recruitment and welfare, leading to the rejection of the null hypothesis and confirming their strong approval among staff.
- All evaluated HR practices including recruitment, training, appraisal, and welfare show a significant positive relationship with labour productivity, indicating that improvements in these HR functions are directly associated with increased employee output.
- The organization's HR practices have a significant and positive impact on labour productivity, collectively accounting for a substantial portion of employee output, while each specific function recruitment, training, performance appraisal, and employee welfare also contributes individually and positively to productivity

VII. SUGGESTIONS

- To enhance female representation in the workforce, implement targeted development and mentorship programs that support women's growth into technical and leadership roles.
- Address the mature workforce by implementing a formal succession plan to retain knowledge and introducing targeted recruitment of younger employees to balance the age demographic.
- Leverage the technically skilled workforce (Diploma and IT) by investing in continuous advanced training, and sponsor high-potential employees for advanced degrees to fill the university qualification gap.
- Mitigate the operational risk of concentrating staff in the key Blowing and Filling departments by implementing a robust cross-training program with employees from Molding, Printing, and Stores.
- Develop the large base of operational workers by creating clear career paths and leadership training programs to promote internal talent into the limited supervisory and managerial positions.
- Retain the stable, experienced, long-tenured staff by engaging them as mentors for the small number of new employees and empowering them to lead continuous improvement projects.
- Maintain high employee morale and organizational trust by continuing to strengthen and invest in the specific HR

practices that are already positively perceived, such as recruitment and employee welfare.

- Since all HR practices show a positive relationship with productivity, management should treat investments in recruitment, training, appraisal, and welfare as direct drivers of increased employee output.
- Given that all four HR practices significantly *impact* and collectively account for a large portion of productivity, the organization must strategically invest in all four areas (Recruitment, Training, Performance Appraisal, and Welfare) to maximize overall labour productivity.

VIII. CONCLUSION

- The study aimed to examine the impact of Human Resource (HR) practices specifically recruitment, training, performance appraisal, and employee welfare on labour productivity at E-MOX Manufacturing Pvt. Ltd., Puducherry. The findings reveal a strong and positive perception among employees regarding the company's HR initiatives, indicating that these practices are effectively aligned with organizational goals and employee needs.
- The analysis confirmed that all four HR practices have a significant and positive influence on labour productivity. However, the study also highlights areas requiring continued attention, such as strengthening succession planning for the mature workforce and enhancing skill development among operational employees to sustain long-term productivity.
- To build on these strengths, Emox should continue investing strategically in HR development, ensuring continuous improvement in recruitment quality, employee training, fair appraisals, and welfare programs. By reinforcing these practices and aligning them with future workforce requirements, the company can further enhance productivity, employee engagement, and operational excellence.

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