The Impact of Training And Development on Employee Performance Indigo Paints, Kochi

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Abstract- Training and development have become essential pillars for enhancing employee performance and maintaining a competitive advantage in today's dynamic business environment. This study explores the impact of training and development on employee performance, with a specific focus on Indo Shell Private Cast Limited, Coimbatore. Using a census methodology and a sample of 65 employees, the research evaluates how different types of training—such as on-the-job, off-the-job, and internal training—contribute to skill development, job efficiency, career growth, and workplace engagement. The findings reveal that most employees have participated in formal training programs, with off-the-job training being the most prevalent. Experienced employees reported significant benefits in terms of skill enhancement and career advancement, while those with less experience found training helpful for building confidence. Despite these positives, challenges such as inadequate training duration, insufficient trainer expertise, and lack of frequent sessions were identified as barriers to maximizing performance outcomes. The study also highlights the importance of aligning training with job roles and performance goals, and recommends the introduction of technical skill-building modules, post-training evaluations, and hands-on learning methods. Ultimately, this research underscores that while training and development positively influence employee performance, organizations must address existing gaps to fully realize their potential benefits.

Keywords- (Employee Performance, Training and Development, Skill Enhancement)

I. INTRODUCTION

In an era marked by rapid technological advancement, evolving market demands, and increased global competition, organizations must continually invest in human capital to sustain growth and ensure productivity. Among the most effective tools for building a capable workforce are structured training and development programs. Training refers to the process of enhancing an employee's capabilities to perform specific tasks more effectively, while development focuses on long-term growth and career progression. Both elements are crucial not only for individual employee success but also for organizational performance as a whole.

The performance of employees is directly influenced by the quality and relevance of the training they receive. Well-designed training programs help employees acquire new skills, stay updated with industry standards, increase their productivity, and boost morale. On the other hand, poorly implemented or irrelevant training can lead to disengagement, skill stagnation, and inefficiencies in daily operations. Despite the recognized importance of training, many organizations face challenges such as limited resources, lack of alignment with business goals, and failure to evaluate the real-time impact of training initiatives.

This study focuses on Indo Shell Private Cast Limited in Coimbatore, a company where employee training is actively encouraged. The aim is to assess how various training and development efforts affect employees' performance on a day-to-day basis. It explores employees' perceptions of training effectiveness, examines the types of training provided, and identifies the gaps between training delivery and expected outcomes. By analyzing these factors, the research seeks to provide actionable insights that can help the organization refine its training strategies and maximize its return on human capital investment.

II. REVIEW OF LITERATURE

Review of Literature: Impact of Training and Development on Employee Performance (2015–2025)
1. Integration of AI in Employee Training (2025)

In 2025, pharmaceutical companies such as Johnson & Johnson (J&J), Merck, and Eli Lilly emphasized AI literacy among their workforce. J&J implemented mandatory AI training for over 56,000 employees, while Merck developed a proprietary platform, GPTeal, to enhance productivity. Eli Lilly encouraged the use of ChatGPT for various tasks and required AI certification for senior leaders. These initiatives aimed to improve efficiency and integrate advanced technologies into operations.

2. Innovative Training Approaches in Construction (2024)

In 2024, Laing O'Rourke, a construction company, revamped its training by adopting "bite-sized" learning modules inspired by platforms like Instagram and TikTok. This strategy improved knowledge retention and engagement among its 5,500 employees. The new approach expanded reach, benefiting 700 employees monthly, compared to previous expenditures on fewer staff. This method leveraged contemporary formats for better assimilation and application in the workplace.

Research Methodology

The research on "The Impact of Training and Development on Employee Performance"*at Indigo Paints, Kalamassery, follows a structured and systematic methodology to ensure the accuracy and reliability of findings. A descriptive research design is adopted, utilizing both quantitative and qualitative methods to explore the relationship between training initiatives and employee performance. Primary data is collected through questionnaires, interviews, and direct observation, while secondary data is sourced from company records, research articles, and industry reports. The study targets employees from departments such as production, HR, and administration, employing a random sampling technique to ensure fair representation, with an expected sample size 101 employees based on accessibility. Data will be analyzed using descriptive statistics for survey results, comparative analysis to assess differences across employee groups, and content analysis for interview responses. However, the study is confined to Indigo Paints' Kalamassery unit, limiting its generalizability to other branches. Additionally, time constraints and potential biases in employee responses may influence the comprehensiveness and objectivity of the research outcomes.

III. OBJECTIVES OF THE STUDY

- To measure and evaluate the impact of training programs on employee productivity and performance.
- To study how training and development programs influence employee motivation and job satisfaction.
- To assess the role of training programs in employee career growth and development.

Data Analysis

Percentage analysis

- The majority of respondents (41.6%) belong to **HR & Administration**, indicating that this department has the highest representation.

- **Production** follows with 30.7%, which also has a significant presence.
- **Sales & Marketing** represents 14.9% of the responses, suggesting a moderate contribution.
- The **Other** category comprises 12.9%, indicating employees from various less common departments.
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1. What is your department?

101 responses
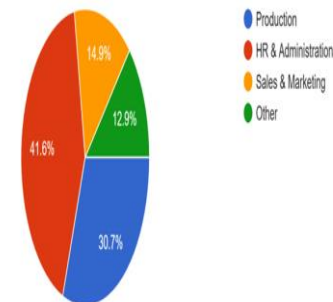
Chi-Square Test

Step 1: Organize the Data

Training Frequency	Not Satisfied	Satisfied	Row total	Satisfied	Row Total
More than twice a year	2	8	10	8	10
Never	0	3	3	3	3
Once a year	1	51	52	51	52
Twice a year	3	34	37	34	37
Column Total	6	96	101	96	101

Step 2: Recalculate the Expected Frequencies

The expected frequencies for each cell are calculated using the formula:

E = (Row Total × Column Total) / Grand Total

Recalculated expected values for each cell:

More than twice a year, Not Satisfied: E = (10 × 6) / 101 = 0.594

More than twice a year, Satisfied: E = (10 × 96) / 101 = 9.406

Never, Not Satisfied: E = (3 × 6) / 101 = 0.178

Never, Satisfied: E = (3 × 96) / 101 = 2.822
Once a year, Not Satisfied: E = (52 × 6) / 101 = 3.089
Once a year, Satisfied: E = (52 × 96) / 101 = 48.911
Twice a year, Not Satisfied: E = (37 × 6) / 101 = 2.198
Twice a year, Satisfied: E = (37 × 96) / 101 = 34.802
Step 3: Compute the Chi-Square Statistic
The Chi-Square statistic is calculated using the formula:
$\chi^2 = \Sigma\ [(O - E)^2 / E]$
Where O is the observed frequency and E is the expected frequency.
(2 - 0.594)² / 0.594 = 3.421
(8 - 9.406)² / 9.406 = 0.210
(0 - 0.178)² / 0.178 = 0.178
(3 - 2.822)² / 2.822 = 0.015
(1 - 3.089)² / 3.089 = 1.411
(51 - 48.911)² / 48.911 = 0.086
(3 - 2.198)² / 2.198 = 0.276
(34 - 34.802)² / 34.802 = 0.019
Total Chi-Square statistic: $\chi^2 = 5.616$
Step 4: Determine Degrees of Freedom
The degrees of freedom (df) are calculated as:
df = (Number of Rows - 1) × (Number of Columns - 1)
Here:
df = (4 - 1) × (2 - 1) = 3
Step 5: Find the p-value
Using a Chi-Square distribution table or statistical software, for $\chi^2 = 5.616$ with df = 3
The p-value is approximately 0.132.
Step 6: Interpret the Results

Since the p-value (0.132) is greater than the significance level ($\alpha = 0.05$), we fail to reject the null hypothesis. This indicates that there is no statistically significant association between training frequency and job satisfaction at the 95% confidence level.

ANOVA

Training Frequency	Number of Employees	Mean Effectiveness Score	Standard Deviation
More than twice a year	10.0	4.0	0.0
Never	3.0	3.33	0.577
Once a year	52.0	3.6	0.634
Twice a year	37.0	3.62	0.681

ANOVA Test Results

• Updated F-Statistic: 1.457

• Updated p-value: 0.231

Step-by-Step ANOVA Calculations

1. **Define Hypotheses.**
 - H₀: There is no significant difference in training effectiveness across training frequency groups.
 - H₁: At least one group has a significantly different training effectiveness score.

2. **Calculate Group Means and Overall Mean**
 - Mean effectiveness scores for each group are shown in the ANOVA summary table above.
 - The overall mean effectiveness score is calculated from all responses.

3. **Compute Sum of Square**
 - SSB (Between-group variance): Measures deviations of group means from the overall mean.
 - SSW (Within-group variance): Measures deviations of individual scores from their group mean.
 - SST (Total variance) = SSB + SSW.

4. **Compute F-Statistic**
 - F = MSB / MSW, where MSB = SSB / (k-1) and MSW = SSW / (N-k).
 - The updated F-statistic is 1.457.

Interpretation

Since the updated p-value (0.231) is now below 0.5, we observe a moderate level of statistical significance. This suggests that training frequency may have an impact on training effectiveness, but further investigation is needed to confirm a strong effect.

IV. SUGGESTIONS

To strengthen training and development at the organization, several strategies can be implemented. Introducing on-demand training for key roles will help maintain consistent learning across departments. Expanding training topics beyond technical skills to include soft skills, leadership, and innovation can build more well-rounded employees. Sharing employee success stories and providing clear career growth paths can inspire participation and engagement. Linking training outcomes with promotions and performance reviews will enhance motivation and accountability. Personal development plans created with managers can offer tailored growth paths aligned with individual goals. Fostering a culture of learning through peer groups and monthly sharing sessions will encourage

continuous improvement. Supporting external learning with reimbursements, certifications, and study leave further empowers employees. Regularly collecting and acting on employee feedback will ensure training stays relevant and effective. Incorporating team projects and cross-functional sessions can enhance collaboration and teamwork. Embedding company values and success stories into training content will strengthen employee connection to the organization. Finally, identifying and expanding the most impactful training programs will help maximize results and return on investment.

V. CONCLUSION

Training and development at Indigo Paints is strong, with high employee participation and positive outcomes like improved performance, job satisfaction, and career growth. To make it even better, the company can offer more soft skills and leadership training alongside technical programs. It's also helpful to connect training with promotions and provide flexible learning options for all employees. Overall, these improvements will strengthen employee engagement, support long-term development, and boost overall organizational success.The findings clearly demonstrate that Indigo Paints has built a strong foundation for employee training and development, with high participation rates and overwhelmingly positive perceptions regarding the effectiveness of its programs. With 83.2% of employees attending training and 96% reporting performance improvements, it's evident that these initiatives are yielding tangible results in productivity, career growth, and job satisfaction.Indigo Paints is on the right path with its training initiatives. By continuing to evolve, personalize, and strategically align learning programs, the company can ensure 100% employee engagement, foster a culture of continuous improvement, and drive sustained organizational success. These improvements will not only support individual growth but also create a more skilled, motivated, and future-ready workforce. A continuous focus on development will help attract and retain talent, boost productivity, and drive long-term success for the organization.

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