ISSN: 2582-7219

International Journal of Multidisciplinary Research in Science, Engineering and Technology

(A Monthly, Peer Reviewed, Refereed, Scholarly Indexed, Open Access Journal)

Impact Factor: 8.206

Volume 8, Issue 9, September 2025

© 2025 IJMRSET | Volume 8, Issue 9, September 2025| DOI:10.15680/IJMRSET.2025.0809014

ISSN: 2582-7219 | www.ijmrset.com | Impact Factor: 8.206| ESTD Year: 2018|

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Impact of Training and Development Program on Employee Performance in Pinhill Tea Industrial Cooperation in Nilgiris District

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ABSTRACT: This study explores the impact of training and development on employee performance in Pinhill Tea Industrial Co-operation located in the Nilgiris district. With the tea industry being a labor-intensive sector, the effectiveness of human resource practices such as training is critical for enhancing productivity and maintaining competitive advantage.The findings indicate a strong positive relationship between effective training and improved employee performance, highlighting the need for continuous and well-structured training initiatives. The study provides valuable insights for management to formulate strategic training policies that align with organizational goals and employee development.

KEYWORDS: Training and Development, Employee Performance, Tea Industry, Nilgiris District, Job Satisfication, Skill Enhancement and Workforce Productivity.

I. INTRODUCTION

India is a major tea producing country in the world. The tea industry in India is one of the oldest and well-organized industries and plays an important role in the national economy. It is traditionally an important foreign exchange earned with negligible import content and makes a significant contribution to the state and control exchequer. The Training and development play a crucial role in enhancing employee performance, particularly in organizations like Pin hill Tea Industrial Cooperation in Nilgiris District. By providing employees with the necessary skills, knowledge, and tools, organizations can improve productivity, efficiency, and job satisfaction, which in turn contribute to the overall success of the company. This study seeks to explore the impact of training and development on employee performance at Pin hill Tea Industrial Cooperation, examining how these programs influence various aspects of performance such as productivity, job satisfaction, and motivation within the company.

1.1 STATEMENT OF THE PROBLEM

The statement of the problem for a study on the impact of training and development on employee performance in pin hill tea-industrial co-operation in Nilgiris district could be Despite the availability of training programs, many organizations, including those in the tea industry, face challenges in measuring the effectiveness of these initiatives. At Pinehill Tea-Industrial Co-operation, there is a growing need to assess whether current training and development programs are aligned with organizational goals and whether they translate into improved employee performance. Challenges such as outdated training methods, limited resources, and lack of employee motivation may hinder the success of such programs. This study seeks to bridge this gap by evaluating the direct and indirect impacts of training and development on employee performance, thus providing insights for improving human resource strategies.

1.2 OBJECTIVES OF THE STUDY

- To evaluate the types of training and development programs implemented at Pinhill Tea-Industrial Co-operation.
- To assess the impact of these programs on the performance of employees in various roles.
- To identify challenges in the implementation of training programs and recommend solutions for improvement.
- To explore the relationship between training frequency, content, and employee motivation.

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1.3 SCOPE OF THE STUDY

This study is confined to Pin hill Tea-Industrial Co-operation in the Nilgiris District. It focuses on the training and development programs implemented within the organization and their impact on employee performance. The study covers various roles within the organization, including fieldworkers, processing staff, and administrative employees.

1.4 LIMITATIONS OF THE STUDY

- The study was based on limited sample of 230 respondents.
- The study covers only Nilgiris district.
- Due to Limitations of time and resources, the research was conducted within a limited period of three months.
- The responses given by the employers may be subjective in nature.

II. REVIEW OF LITERATURE

1. Mohan and Sara. (2018) conducted a comparative analysis of the tea export value chains in Sri Lanka, Nepal, and Kenya, aimed at analyzing the policy influences on up gradation of tea value chains. The study found that Kenya, emphasized on productivity and high-quality bulk export, but Sri Lanka encouraged competitiveness in value added packaged products.

2. Kumareswaran Thangaraj, V. K. D. K. A. S. (2018) This study delves into the dynamics of tea export in India, analyzing the factors that have influenced India's position in the global tea market. The paper evaluates export trends, major export destinations, the role of Indian tea in the international market, and the challenges faced by the Indian tea industry in maintaining its competitive edge.

3. Talukdar, U., & Hazarika, C. (2017) This research explores India's production and export of value-added tea and assesses its global competitiveness. The paper examines how processed and premium tea products such as flavored, organic, herbal, and specialty teas perform in the international market compared to bulk tea exports. The study emphasizes the importance of innovation and branding in improving India's standing in the global tea industry.

III. RESEARCH METHODOLODY

Research Design - Descriptive research design.
Source of Data - Primary data & Secondary data.
Sampling Technique - Snowball sampling technique.
Sampling Size – 230 respondents.
Tools For Analysis
The research paper involved certain tools like

- Simple percentage analysis.
- One way ANOVA.
- Chi-square.
- Correlation analysis.
- Rank analysis.
- Weighted average method.

IV. DATA ANALYSIS & INTERPRETATION

4.1 SIMPLE PERCENTAGE

Simple percentage analysis is one of the basic statistical tools which is widely used in the analysis and interpretation of primary data. It deals with the number of respondents response to a particular question in percentage arrived from the total population selected for the study.

The simple percentage can be calculated by using the formula,

$$\textbf{Simple Percentage} = \frac{\textbf{Actual respondents}}{\textbf{Total number of repondents}} \times 100$$

TABLE 4.1

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Socio-economic Background		Percentage
Age of the respondents	Below 25	59.5
	25-35	29.6
	36-45	8.7
	Above 45	2.2
Sex	Male	47.4
	Female	52.6
Marital Status	Married	32.2
	Unmarried	67.8
Education qualification	High school	3.9
	Undergraduate	48.3
	Postgraduate	34.3
	Professional Qualification	13.5
Area of residency	Urban	39.1
	Semi-urban	22.6
	Rural	38.3
Occupational	Employed	40
	Self employed	35.7
	Retired	5.7
	Unemployed	7.8
	Student	10.9

Source: Primary Data, 2025

INTERPRETATION

The 2025 primary data reveals that a majority of respondents (59.5%) are below the age of 25, followed by 29.6% aged 25–35, indicating a predominantly young population. Females make up a slightly larger portion (52.6%) compared to males (47.4%). Most respondents are unmarried (67.8%), which aligns with the youthful age group. In terms of education, 48.3% are undergraduates, 34.3% postgraduates, and 13.5% hold professional qualifications, showing a highly educated group. Only 3.9% have completed only high school. Respondents come from varied backgrounds, with 39.1% from urban areas, 38.3% from rural, and 22.6% from semi-urban areas. Occupationally, 40% are employed and 35.7% are self-employed, showing strong workforce involvement. Students make up 10.9%, while 7.8% are unemployed and 5.7% retired. Overall, the sample reflects a young, educated, and economically active population.

4.2 ANOVA

Analysis of Variance (ANOVA) is a statistical formula used to compare variances across the means (or average) of different groups. A range of scenarios use it to determine if there is any difference between the means of different groups.

TABLE 4.2: ANOVA BETWEEN TRAINING EFFECTIVENESS AND JOB SATISFACTION

H_0 = There is no statistical difference between training effectiveness and job satisfaction
H_1= There is a statistical difference between training effectiveness and job satisfaction

	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	22.495	3	7.498	5.349	.001
Within Groups	316.827	226	1.402		
Total	339.322	229			

Source: Primary Data, 2025

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INTERPRETATION

In the above table, with the degree of freedom 3 and f-value 5.349, sig. (3, 5.349) =.001 which is lesser than 0.05, so we conclude that there is significance difference between training effectiveness and job satisfaction. Thus, the null hypothesis (H_0) is rejected, and the alternative hypothesis (H_1) is Accepted.

4.3 CHI- SQUARE TEST

A chi- square test, also written as x^2 test is any test statistical hypothesis test where the sampling distribution of the test statistic is squared distribution when the null hypothesis is true, without other qualification, chi- square test is often used as short for Pearson's chi-square test.

The chi- square test is used to determine whether is a significant relationship between the expected frequencies and the observed frequencies is one or more categories.

TABLE 4.3: COMPARISON BETWEEN CURRENT ROLE AND PARTICIPATION IN TRAINING PROGRAM

H_0 = There is no association between current role and participation in training program
H_1 = There is an association between current role and participation in training program

		How often participate in training program				Total
		Weekly	Monthly	Quarterly	Annually	
Current role	Production Worker	20	18	3	5	46
	Supervisor	9	39	13	5	66
	Manager	21	29	21	6	77
	Administrative Staff	4	16	8	13	41
Total		54	102	45	29	230

Source: Primary Data, 2025

Chi-Square Tests			
	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	39.928[a]	9	.004
Likelihood Ratio	37.557	9	.004
Linear-by-Linear Association	14.590	1	.000
N of Valid Cases	230		

INTERPRETATION

In the above table, with the degrees of freedom 9, sig .value (.004) which is lesser than significant value (0.05), so we conclude that there is an association between current role and participation in training program.

Thus, the null hypothesis (H_0) is rejected, and the alternative hypothesis (H_1) is Accepted.

TABLE 4.4: COMPARISON BETWEEN EDUCATIONAL QUALIFICATION AND IMPACT ON YOUR JOB PERFORMANCE

H_0 = There is no association between educational qualification and impact on your job performance
H_1 = There is an association between educational qualification and impact on your job performance

		Impact on your job performance		
		technical skills development	leadership/management training	safety training
Educational qualification	high school	4	2	1
	undergraduate	27	48	26

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	postgraduate	21	26	19
	professional qualification	21	5	3
Total		73	81	49

Chi-Square Tests			
Pearson Chi-Square	Value	df	Asymptotic Significance (2-sided)
Likelihood Ratio	27.071[a]	9	.001
Linear-by-Linear Association	25.354	9	.003
N of Valid Cases	4.309	1	.038
Pearson Chi-Square	230		

Source: Primary Data, 2025

INTERPRETATION

In the above table, with the degrees of freedom 9, sig .value (.003) which is lesser than significant value (0.05), so we conclude that there is an association between educational qualification and impact on your job performance. Thus, the null hypothesis (H_0) is rejected, and the alternative hypothesis (H_1) is Accepted.

4.4 CORRELATION

Correlation is a statistical measure that expresses the extent to which two variables are linearly related (meaning them together a constant rate). It's a common tool for describing simple relationships without making a statement about cause and effect.

TABLE 4.5: CORRELATION BETWEEN MONTHLY INCOME AND HOW LONG HAVE YOU EMPLOYED

H_0 = There is no relationship between monthly income and how long have you employed
H_1 = There is a relationship between monthly income and how long have you employed

Correlations			
		Monthly income	How long have you employed
Monthly income	Pearson Correlation	1	.319
	Sig. (2-tailed)		.000
	N	230	230
How long have you employed	Pearson Correlation	.319	1
	Sig. (2-tailed)	.000	
	N	230	230

Source: Primary Data, 2025

INTERPRETATION

In the above table, the Sig .value (.000) which is lesser than the significant value (0.05), so we can conclude there is a relationship between monthly income and how long have you employed. Thus, the null hypothesis (H_0) is rejected, and the alternative hypothesis (H_1) is Accepted.

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TABLE 4.6: CORRELATION BETWEEN AREA OF RESIDENCY AND HOW LONG HAVE YOU EMPLOYED

H_0 = There is no relationship between area of residency and how long have you employed

H_1 = There is a relationship between area of residency and how long have you employed

Correlations			
		Area of residency	How long have you employed
Area of residency	Pearson Correlation	1	-.022
	Sig. (2-tailed)		.744
	N	230	230
How long have you employed	Pearson Correlation	-.022	1
	Sig. (2-tailed)	.744	
	N	230	230

Source: Primary Data, 2025

INTERPRETATION

In the above table, the Sig .value (.744) which is greater than the significant value (0.05), so we can conclude there is no relationship between area of residency and how long have you employed. Thus, the null hypothesis (H_0) is Accepted, and the alternative hypothesis (H_1) is Rejected.

4.5 RANK ANALYSIS

Rank analysis is a statistical method used to compare and evaluate data by ranking values instead of using their absolute numbers. It helps in reducing the impact of outliers and it is widely used in fields like economics, psychology and decision-making process.

TABLE 4.7: EFFECTIVENESS OF TRAINGING AND DEVELOPMENT PROGRAM IMPLEMENTED

STATEMENT	I	II	III	IV	V	TOTAL	RANK
On-the-job training	125 625	56 224	15 45	15 30	19 19	943	1
Classroom-Based training	71 355	94 376	25 75	21 42	19 19	867	2
E-learning and online courses	71 355	71 284	47 141	20 40	21 21	841	7
Workshops and seminors	83 415	73 292	23 69	29 58	22 22	856	6
Mentorship and coaching program	71 355	93 372	26 78	21 42	19 19	866	3
Leadership development program	80 400	74 296	30 90	28 56	18 18	860	4
Cross-functional training and job rotation	89 445	63 252	30 90	21 42	27 27	856	5

Source: Primary Data, 2025

INTERPRETATION

From the above analysis of the effectiveness of training and development program implemented system the highest ranked factor is On-the-job training followed by, Classroom-Based training, Mentorship and coaching program, Leadership development program, Cross-functional training and job rotation, Workshops and seminars, E-learning and online courses. Overall, the results highlight that hands-on learning through on-the-job training is the most effective, followed by structured and mentorship-based methods. Leadership programs, cross-functional training, and online courses play a supportive role but are less impactful compared to practical experience.

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4.6 WEIGHTED AVERAGE METHOD

A weighted average is a calculation that takes into account the varying degree of importance of the numbers in a data set. In calculating a weighted average, each number in the data set is multiplied by predetermined weight before the final calculation.

TABLE 4.8: IMPACT OF TRAINING PROGRAM ON JOB SATISFACTION

STATEMENT	Satisfied	Highly Satisfied	Neutral	Dissatisfied	Highly Dissatisfied	TOTAL	Mean
It increases my satisfaction	130 650	67 268	9 27	13 26	11 11	230 982	4.27
It has no effect on my satisfaction	61 305	117 428	32 96	10 20	10 10	230 859	3.73
It decreases my satisfaction	74 370	69 276	61 183	15 30	11 11	230 870	3.78
It significantly increases my satisfaction	97 485	76 304	32 96	21 42	4 4	230 962	4.18
It moderately increases my satisfaction	90 450	88 352	28 84	17 34	7 7	230 927	4.03
It slightly increases my satisfaction	75 375	90 360	42 126	14 28	9 9	230 898	3.90
It has no effect on my satisfaction	96 480	69 276	37 111	19 38	9 9	230 914	3.97

Source: Primary Data, 2025

INTERPRETATION

The highest mean score is 4.27 (It increases my satisfaction), indicating that the majority of respondents feel a positive impact. This is followed by 4.18 (It significantly increases my satisfaction), showing that a considerable number of respondents experience a strong positive effect. Other notable scores include 4.03 (It moderately increases my satisfaction), 3.97 (It has no effect on my satisfaction), and 3.90 (It slightly increases my satisfaction), suggesting varying degrees of positive impact. Meanwhile, 3.78 (It decreases my satisfaction) and 3.73 (It has no effect on my satisfaction) indicate that some respondents remain neutral or experience a slight negative impact. Overall, the findings suggest that the majority perceive an increase in satisfaction, though a smaller group feels neutral or dissatisfied. Further investigation into the reasons behind the neutral and negative responses could provide insights for improvement.

V. FINDINGS

1. Most respondents are young, unmarried, and well-educated, indicating a workforce that is open to learning and development.
2. ANOVA shows a strong link between effective training and higher job satisfaction among employees.
3. Chi-square results reveal that training participation varies by role, and education level influences training impact.
4. Correlation shows that longer employment leads to higher income, but area of residence has no effect on job tenure.
5. On-the-job training is rated most effective, and overall, training is seen to positively impact job satisfaction and career growth.

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VI. SUGGESTIONS

1. Focus on practical, on-the-job training for better effectiveness.
2. Update outdated content with e-learning and interactive tools.
3. Tailor training by job role and department needs.
4. Match training to education levels—basic to advanced.
5. Offer growth paths for long-serving employees to boost retention.
6. Ensure equal training access for all residential areas.
7. Regularly evaluate training through feedback and reviews.
8. Motivate staff with recognition, rewards, and incentives.

VII. CONCLUSIONS

In conclusion, the impact of training and development on employee performance at Pinhill Tea-Industrial Co-operation in Nilgiris district is crucial for enhancing overall organizational efficiency and productivity. While the company has implemented various training programs, challenges such as outdated methods, limited resources, and a lack of employee motivation hinder their effectiveness. By aligning training programs with organizational goals, modernizing training content, and fostering a culture of continuous learning, the company can significantly improve employee performance. Addressing these challenges and ensuring regular evaluation of training outcomes will empower employees, increase engagement, and ultimately lead to better performance, contributing to the growth of the company.

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