

HUMAN RESOURCE MANAGEMENT WITH REFERENCE TO EMPLOYEE TRAINING PRACTICES IN ENGINEERING AND CHEMICAL INDUSTRIES IN THE STATES OF GUJARAT AND ANDHRA PRADESH

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Abstract :The study is an attempt to research and analyse "Human Resource Practices with reference to Employee Training " of selected Engineering and Pharmaceutical/Chemical industries in the States of Gujarat and Andhra Pradesh. It also tries to study and examine the impact of Training Practices over these industries and the innovative practices evolved to meet the future demands and threats. Present research work is of descriptive in nature and it tries to compare various Employee Training practices over two states followed by selected Engineering and Pharmaceutical / Chemical companies.

Key words:Human Resource Management , Employee Training Practices , Engineering and Chemical Industries .

INTRODUCTION

Human life is built around work. The work is carried out by individuals [human beings] and institutions. Institutions are created by human beings to accomplish their various needs with reference to their requirement for existence on this earth in the continuously changing environment. The activities carried out, the way in which all such activities are carried out in the organization, and the success or otherwise all depend on the individuals which man the organization and the way they are managed. Who are these people? How to select/train and retrain them? How to motivate them for attaining the organizational goals? These are certain basic questions which should be answered by the top management and the manager who is in charge of the HRM functions in any industrial organization.

The increasing pressures from various rapid changes that are occurring in the business environment have led to a variety of responses among industrial organizations. Globalization of production and markets, increasing rate of technological innovation and fluctuation in consumer demand are among the factors that have increased the dynamism of the competitive environment to which organizations must respond.

REVIEW OF LITERATURE

Arif Hassan, Junaidah Hashim, Ahmed ZakiHj Ismail (2006) stated that there existed large inter-organizational differences in Human Resource Development (HRD) practices. In general, however, employees' ratings were moderate. ISO certified companies, compared to others, obtained higher means on some HRD variables. Organizations with better learning, training and development systems, reward and recognition, and information systems promoted human resource development climate. AmbaRao on the basis of his study "HRM practices in India: An Exploratory study" concluded that environmental factors and change, the history of foreign business experience in India, and interactions and information exchange among firms, tended to influence organizational and management practices in the small sample of firms studied, with a blend of traditional and Western styles. Managers of these companies were all Indians, but had assimilated the values of organizations, specifically rationality and efficiency. Sally Coleman Selden, Patricia Wallace Ingraham and Willow Jacobson tried to study what government was doing with respect to

human resource practices to improve operations. In early 1990s, civil service and personnel systems were characterized as rigid, regressive, rule bound and cumbersome. Managers of the public sector organizations complained that existing systems impede their ability to manage and make critical personnel decisions. Employees were not adequately compensated and did not receive well-deserved recognition. In response to the concerns raised by the stakeholders in the name of performance and efficiency, various personnel reforms have swept through state governments. In short, many states were investing considerable resources to modernize their human resource management systems.

According to K. Krishna Kumar, human resource is considered as the backbone of any economic enterprise. The optimal utilization of natural resources and factor inputs of capital technology depend on the extent of use of human resources. The human resource management is a proactive central strategic management activity which is different from conventional personnel management. It has a tremendous relevance to productivity industry. The level of efficiency of production of this input is reflected in the quality of product provided by industry to its customer. The most of the employees on regular and contract status show excellent performance but just after being regularized their performance decreases and it has become a different circle.

Jayanth Jayaram, Cornelia Droge, Shawnee K. Vickery, examined HRM framework between relationships among dimensions of human resource management practices and manufacturing performance. The study found support for the proposed framework, suggesting that human resource management practices can be grouped into five distinct factors, four of which are associated with specific manufacturing competitive dimensions _quality, flexibility, cost and time.. Yeung and Ulrich (1990) opined that human resource practices were not varied by strategy, but that alignment of human resource and strategy have an positive effect on business performance and concluded that under environmental conditions of high change, executive attention to human resource practices had a large impact on business results. Ostroff (1995) identified that when human resource professionals perceive a higher quality of human resource practices; these firms have higher business results. Studies have shown that relationship between progressive human resource practices and firm performance in manufacturing firms.

OBJECTIVES OF THE STUDY

- To review the existing practices of various methods of training with respect to all the levels in the organization.

RESEARCH METHODOLOGY

The present study was purely of comparative and descriptive type and holds “Ex Post Facto” design. It is not possible to carry out the present research work experimentally by manipulating variables. Here in the “Ex Post Facto” it is not possible to have control over variables. Here it becomes necessary to hold the variables constant so as to minimize the errors and maximize the objectivity of the study. The present study is primarily focused on comparison of various HR practices followed by the industries in these two states.. Here the data is collected from selected companies and the same information is used to make cross-classification comparisons and in determining relationship between them.

For the present study, the primary data has been collected through questionnaire and through personal visits and interaction with the personnels of the HR department of the selected companies. Here for this study, stratified random sampling have been adopted to broadly classify the industrial sector into groups namely 1. Engineering, 2. Pharmaceutical/Chemical. Then from each group 15 industries have been contacted using convenient sampling technique. The present study is confined to states of Gujarat and Andhra Pradesh, wherein 15 companies have been selected from engineering and pharmaceutical/chemical companies.

Data Analysis

Table: 1 Information about the Collected Data

Sector	State		Total
	Gujarat	Andhra Pradesh	
Engineering	15	15	30
Pharmaceutical/Chemical	15	15	30
Total	30	30	60

Data was collected from total 60 companies. There were 15 engineering companies in each state viz, Gujarat and Andhra Pradesh. Similarly, there were 15 Pharmaceutical / Chemical companies in each state.

Training Issues

One of the objectives of the study was to review the existing practices and various methods of training and development with respect to different level of organization. This part of analysis shows the tables related to training and development.

Objectives of Training

To make comparative study of training issues, questions related to objectives of employee training programs were asked from the Human Resource Managers of the selected organizations. They have been asked to rate the importance of five objectives of training in the five point scale where 5 indicate ‘extremely important and 1 indicates ‘not important at all’. On the basis of the response of these questions, first mean scores and standard deviation for engineering industries in Gujarat & Andhra Pradesh and for Pharmaceutical/Chemical Industries in these two states have been calculated and ANOVA with Post Hoc Analysis was carried out to find out whether there is significant difference for these 5 training objectives.

T test was done to know whether industries of two states differ in pursuing different objectives of training and similarly to compare two types of industries of two states. The results of these analyses are summarized in following tables.

Table:2 Importance of various objectives of employee training in Engineering Industries (15) in the state of Gujarat

Objectives for Employee Training	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean	
				Lower Bound	Upper Bound
Developing Production Skills	4.80	0.561	0.145	4.49	5.11
Employee Motivation	4.73	0.458	0.118	4.48	4.99
Organization Norms and Values	3.00	1.134	0.293	2.37	3.63
Developing Management Skills	3.87	0.516	0.133	3.58	4.15
Retraining of New Roles	3.87	0.743	0.192	3.46	4.28

From the Table 2, it can be observed that respondents from Engineering Industries in Gujarat are giving more weightage to (i) Developing Production skills and (ii) Employee Motivation and lesser weightage towards Organization Norms and Values, where mean is the minimum, however the standard deviation is the highest. Developing Management Skills and Retaining New Roles have a mean of 3.87. However, all the weightages are 3.00 or above.

To check whether there is statistical significant difference between various objectives, following

hypothesis was tested with the help of ANOVA:

H₁₀: There is no difference in the means of the various objectives of the employee training. viz. $\mu_1 = \mu_2 = \mu_3 = \mu_4 = \mu_5$.

H₁₁: There is a difference in means of some of the objectives of the employee training.

Table: 3 Training objectives in Engineering Industries (15) in the state of Gujarat

Source of Variation	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	32.987	4	8.247	15.687	0.000
Within Groups	36.800	70	0.526		
Total	69.787	74			

From the Table 3 it can be observed that the null hypothesis is rejected at $\alpha = 0.05$ and the alternative hypothesis is accepted. To find out as to which objectives of Employee Training have significant difference, Post Hoc Analysis, is carried out and the results are presented in Table 4.

Table: 4 Post Hoc Analysis of various objectives of employee training in Engineering Industries (15) in the state of Gujarat

(I) Grouping	(J) Grouping	Mean Difference (I-J)	Std. Error	Sig.
		Lower Bound	Upper Bound	Lower Bound
Developing Production Skills	Employee Motivation	.067	.265	.802
	Organization Norms and Values	1.800(*)	.265	.000
	Developing Management Skills	.933(*)	.265	.001
	Retraining of New Roles	.933(*)	.265	.001
Employee Motivation	Developing Production Skills	-.067	.265	.802
	Organization Norms and Values	1.733(*)	.265	.000
	Developing Management Skills	.867(*)	.265	.002
	Retraining of New Roles	.867(*)	.265	.002
Organization Norms and Values	Developing Production Skills	-1.800(*)	.265	.000
	Employee Motivation	-1.733(*)	.265	.000
	Developing Management Skills	-.867(*)	.265	.002
	Retraining of New Roles	-.867(*)	.265	.002

Developing Management Skills	Developing Production Skills	-.933(*)	.265	.001
	Employee Motivation	-.867(*)	.265	.002
	Orgainsation Norms and Values	.867(*)	.265	.002
	Retraining of New Roles	.000	.265	1.000
Retraining of New Roles	Developing Production Skills	-.933(*)	.265	.001
	Employee Motivation	-.867(*)	.265	.002
	Orgainsation Norms and Values	.867(*)	.265	.002
	Developing Management Skills	.000	.265	1.000

The Table 4 reveals the following.

(i)Mean of Developing Production Skills is significantly different than the means of Organization Norms and Values, Developing Management Skills and Retraining of New Roles. However means of Developing Productions Skills and Employee Motivation are not significantly different.

(ii)Mean of Employee Motivation is significantly different from Organization Norms and Values, Developing Management Skills and Retraining of New Roles.

(iii)Mean of Developing Management Skills is significantly different from Organization Norms and Values.

(iv)Mean of Retaining of New Roles is significantly different from Organization Norms and Values.

Table No. 5 shows the responses by the managers of Pharmaceutical/Chemical Industries in the state of Gujarat.

Table: 5 Training objectives in Pharmaceutical/Chemical Industries (15) in the state of Gujarat

Objectives for Employee Training	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean	
				Lower Bound	Upper Bound
Developing Production Skills	4.67	0.488	0.126	4.40	4.94
Employee Motivation	4.73	0.458	0.118	4.48	4.99
Organization Norms and Values	2.73	0.704	0.182	2.34	3.12
Developing Management Skills	4.13	0.915	0.236	3.63	4.64
Retraining of New Roles	3.80	0.775	0.200	3.37	4.23

From the Table 5, it can be observed that respondents from Pharmaceutical / Chemical Industries in Gujarat are giving more weightage to (i) Developing Production skills and (ii) Employee Motivation and lesser weightage towards Organization Norms and Value. Developing Management Skills and Retaining New Roles have a mean of 4.13 and 3.80 respectively. However, all the weightages are 2.73 or above.

To check whether statistical significant difference between various objectives following hypothesis was tested with the help of ANOVA:

H20: There is no difference in the means of the various objectives of the employee training. viz. $\mu_1 = \mu_2 = \mu_3 = \mu_4 = \mu_5$.

H2₁: There is a difference in means of some of the objectives of the employee training.

From the Table 5 it can be observed that the respondents have given more weightage to Developing Production Skills, Employee Motivation and Developing Management Skills, and moderate weightage to Retraining of New Roles. The least weightage is given to Organization Norms and Values.

Table: 6 Importance of various objectives of employee training in Pharmaceutical / Chemical Industries (15) in the state of Gujarat

Source of Variation	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	39.653	4	9.913	20.818	0.000
Within Groups	33.333	70	0.476		
Total	72.987	74			

From the Table 6 it can be observed that the null hypothesis is rejected at $\alpha = 0.05$ and the alternative hypothesis is accepted. To find out as to which objectives of Employee Training have significant difference, Post Hoc Analysis, is carried out and the results are presented in Table 7.

Table:7 Post Hoc analysis of various objectives of employee training in Pharmaceutical / Chemical Industries (15) in the state of Gujarat

(I) Grouping	(J) Grouping	Mean Difference (I-J)	Std. Error	Sig.
		Lower Bound	Upper Bound	Lower Bound
Developing Production Skills	Employee Motivation	-.067	.252	.792
	Organization Norms and Values	1.933(*)	.252	.000
	Developing Management Skills	.533(*)	.252	.038
	Retraining of New Roles	.867(*)	.252	.001
Employee Motivation	Developing Production Skills	.067	.252	.792
	Orgainsation Norms and Values	2.000(*)	.252	.000
	Developing Management Skills	.600(*)	.252	.020
	Retraining of New Roles	.933(*)	.252	.000
Orgainsation Norms and Values	Developing Production Skills	-1.933(*)	.252	.000
	Employee Motivation	-2.000(*)	.252	.000
	Developing Management Skills	-1.400(*)	.252	.000
	Retraining of New Roles	-1.067(*)	.252	.000

Developing Management Skills	Developing Production Skills	-0.533(*)	.252	.038
	Employee Motivation	-0.600(*)	.252	.020
	Organization Norms and Values	1.400(*)	.252	.000
	Retraining of New Roles	.333	.252	.190
Retraining of New Roles	Developing Production Skills	-0.867(*)	.252	.001
	Employee Motivation	-0.933(*)	.252	.000
	Organization Norms and Values	1.067(*)	.252	.000
	Developing Management Skills	-.333	.252	.190

The Table 7 reveals the following:

- (i) Mean of Developing Production Skills is significantly different than the means of Organization Norms and Values, Developing Management Skills and Retraining of New Roles. However means of Developing Productions Skills and Employee Motivation are not significantly different.
- (ii) Mean of Employee Motivation is significantly different from Organization Norms and Values, Developing Management Skills and Retraining of New Roles.
- (iii) Mean of Developing Management Skills is significantly different from Organization Norms and Values.
- (iv) Mean of Retaining of New Roles is significantly different from Organization Norms and Values.

The mean responses given by the managers in the Engineering Industries of Andhra Pradesh. The summary of the study is given in the Table 8.

Table: 8 Training objectives in Engineering Industries (15) in the state of Andhra Pradesh

Objectives of Employee Training	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean	
				Upper Bound	Lower Bound
Developing Production Skills	4.47	0.640	0.165	4.11	4.82
Employee Motivation	4.33	0.488	0.126	4.06	4.60
Organization Norms and Values	3.07	0.704	0.182	2.68	3.46
Developing Management Skills	3.73	0.458	0.118	3.48	3.99
Retraining of New Roles	3.80	0.775	0.200	3.37	4.23

From the Table 8, it can be observed that respondents from Engineering Industries in the state of Andhra Pradesh are giving more weightage to (i) Developing Production skills and (ii) Employee Motivation and lesser weightage towards Organization Norms and Values. Developing Management Skills and Retaining New Roles have a mean of 3.73 and 3.80 respectively. However, all the weightages are 3.07 or above.

To check whether there is statistical significant difference between various objectives, following hypothesis was tested with the help of ANOVA:

H₃: There is no difference in the means of the various objectives of the employee training. viz. μ_1

$$= \mu_2 = \mu_3 = \mu_4 = \mu_5.$$

H₃ : There is a difference in means of some of the objectives of the employee training.

From the Table 8 it is observed that mean score given by the respondents is very high for (i) Developing Production Skills and Employee Motivation, Moderate for Developing management skills and Retraining New Roles and low for Organization Norms and values. To prove the results ANOVA and Post Hoc Analysis are carried out which are given in the Table 9 and Table 10 respectively.

Table: 9 Training objectives in Engineering Industries (15) in the state of Andhra Pradesh

Source of Variation	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	18.587	4	4.647	11.900	0.000
Within Groups	27.333	70	0.390		
Total	45.920	74			

From the Table 9 it can be observed that the null hypothesis is rejected at $\alpha = 0.05$ and the alternative hypothesis is accepted. To find out as to which objectives of Employee Training have significant difference, Post Hoc Analysis, is carried out and the results are presented in Table 10.

Table: 10 Post hoc analysis of various objectives of employee training in Engineering Industries (15) in the state of Andhra Pradesh

(I) Grouping	(J) Grouping	Mean Difference (I-J)	Std. Error	Sig.
		Lower Bound	Upper Bound	Lower Bound
Developing Production Skills	Employee Motivation	.133	.228	.561
	Organization Norms and Values	1.400(*)	.228	.000
	Developing Management Skills	.733(*)	.228	.002
	Retraining of New Roles	.667(*)	.228	.005
Employee Motivation	Developing Production Skills	-.133	.228	.561
	Organization Norms and Values	1.267(*)	.228	.000
	Developing Management Skills	.600(*)	.228	.011
	Retraining of New Roles	.533(*)	.228	.022
Organization Norms and Values	Developing Production Skills	-1.400(*)	.228	.000
	Employee Motivation	-1.267(*)	.228	.000
	Developing Management Skills	-.667(*)	.228	.005
	Retraining of New Roles	-.733(*)	.228	.002

Developing Management Skills	Developing Production Skills	-.733(*)	.228	.002
	Employee Motivation	-.600(*)	.228	.011
	Organization Norms and Values	.667(*)	.228	.005
	Retraining of New Roles	-.067	.228	.771
Retraining of New Roles	Developing Production Skills	-.667(*)	.228	.005
	Employee Motivation	-.533(*)	.228	.022
	Organization Norms and Values	.733(*)	.228	.002
	Developing Management Skills	.067	.228	.771

The Table 10 reveals the following:

(i) Mean of Developing Production Skills is significantly different than the means of Organization Norms and Values, Developing Management Skills and Retraining of New Roles. However means of Developing Productions Skills and Employee Motivation are not significantly different.

(ii) Mean of Employee Motivation is significantly different from Organization Norms and Values, Developing Management Skills and Retraining of New Roles.

(iii) Mean of Developing Management Skills is significantly different from Organization Norms and Values.

(iv) Mean of Retaining of New Roles is significantly different from Organization Norms and Values.

From Table 10 it is observed that the managers of the Engineering Sector in the state of Andhra Pradesh are giving (i) equal or first preference to Developing Production Skill and Employee Motivation, then (ii) they give equal preference to Retaining of New Roles and Developing Management Skills and (iii) last preference is given Organizational Norms and Values.

Table: 11 Training objectives for Pharmaceutical/Chemical Industries (15) in the state of Andhra Pradesh

Objectives of Employee Training	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean	
				Upper Bound	Lower Bound
Developing Production Skills	4.07	0.799	0.206	3.62	4.51
Employee Motivation	4.00	0.756	0.195	3.58	4.42
Organization Norms and Values	3.27	0.458	0.118	3.01	3.52
Developing Management Skills	3.40	0.737	0.190	2.99	3.81
Retraining of New Roles	3.60	0.507	0.131	3.32	3.88

From the Table 11, it can be observed that respondents from Pharmaceutical / Chemical Industries in the state of Andhra Pradesh are giving more weightage to (i) Developing Production skills and (ii) Employee Motivation and lesser weightage towards Organization Norms and Value. Developing Management Skills and Retaining New Roles have a mean of 3.40 and 3.60 respectively. However, all the weightages are 3.27 or above.

To check whether statistical significant difference between various objectives following hypothesis was tested with the help of ANOVA:

H40: There is no difference in the means of the various objectives of the employee training. viz. $\mu_1 = \mu_2 = \mu_3 = \mu_4 = \mu_5$.

H4,: There is a difference in means of some of the objectives of the employee training.

From the Table 11 it can be observed that the respondents have given more weightage to Developing Production Skills, Employee Motivation and Developing Management Skills, and moderate weightage to Retraining of New Roles. The least weightage is given to Organization Norms and Values.

From the Table 11 we conclude that the mean score given by the respondents are very high for Developing Production Skills and Employee Motivation, and moderate for all the remaining. Statistical ascertain the findings we have further carried out ANOVA and Post Hoc Analysis. The results are presented in the table given

Table: 12 Training Objectives in Pharmaceutical / Chemical Industries (15) in the state of Andhra Pradesh

Source of Variation	Sum of Squares	Degree of Freedom	Mean Square	F	Sig.
Between Groups	7.600	4	1.900	4.281	0.004
Within Groups	31.067	70	0.444		
Total	38.667	74			

From the Table 12 it can be observed that the null hypothesis is rejected at $\alpha = 0.05$ and the alternative hypothesis is accepted. To find out as to which objectives of Employee Training have significant difference, Post Hoc Analysis, is carried out and the results are presented in Table 13.

Table: 13 Post Hoc analysis of various objectives of employee training in Pharmaceutical / Chemical Industries (15) in the state of Andhra Pradesh

(I) Grouping	(J) Grouping	Mean Difference (I-J)	Std. Error	Sig.
Developing Production Skills	Employee Motivation	.067	.243	.785
	Organization Norms and Values	.800(*)	.243	.002
	Developing Management Skills	.667(*)	.243	.008
	Retraining of New Roles	.467	.243	.059
Employee Motivation	Developing Production Skills	-.067	.243	.785
	Organization Norms and Values	.733(*)	.243	.004
	Developing Management Skills	.600(*)	.243	.016
	Retraining of New Roles	.400	.243	.105
Organization Norms and Values	Developing Production Skills	-.800(*)	.243	.002
	Employee Motivation	-.733(*)	.243	.004
	Developing Management Skills	-.133	.243	.585
	Retraining of New Roles	-.333	.243	.175

Developing Management Skills	Developing Production Skills	-.667(*)	.243	.008
	Employee Motivation	-.600(*)	.243	.016
	Organization Norms and Values	.133	.243	.585
	Retraining of New Roles	-.200	.243	.414
Retraining of New Roles	Developing Production Skills	-.467	.243	.059
	Employee Motivation	-.400	.243	.105
	Organization Norms and Values	.333	.243	.175
	Developing Management Skills	.200	.243	.414

The Table 13 reveals the following:

(i) Mean of Developing Production Skills is significantly different than the means of Organization Norms and Values, Developing Management Skills and Retraining of New Roles. However means of Developing Productions Skills and Employee Motivation are not significantly different.

(ii) Mean of Employee Motivation is significantly different from Organization Norms and Values, Developing Management Skills.

From Table 13 it is observed that the managers of the Pharmaceutical / Chemical sector are giving:

(i) Equal first preference to (a) Developing Production Skill and (b) Employee Motivation, and then they give equal preference to the remaining.

It is felt that it would add knowledge to the training issues if means scores of managers for different objectives of training, without considering sector into account, and practices of Gujarat and Andhra Pradesh could be compared. This thinking resulted in the following Table 14 for two-independent sample t-tests.

Where the Hypothesis was

H_{5₀}: There is no difference in the means of the various objectives of the employee training between the two states.

H_{5₁}: There is a difference in the means of the various objectives of the employee training between the two states.

Table: 14 Comparison of mean scores by the managers of state of Gujarat and Andhra Pradesh on the importance of various objectives of employee training

Objectives of Employee Training	Hypothesis	Levene's Test for Equality of Variances		t	df	Sig. (2-tailed)
		F	Sig.			
Developing Production Skills	Equal variances not assumed			2.825	52.082	0.007
Employee Motivation	Equal variances assumed	1.735	0.193	3.936	58	0.000
Developing Management Skills	Equal variances assumed	0.499	0.483	2.443	58	0.018

From the Table 14 it can be observed that mean scores for the objectives (i) Developing Production Skills (ii) Employee Motivation and (iii) Developing Management Skills by the Managers in Gujarat are larger than those in Andhra Pradesh irrespective of sectors.

On the similar line sector wise comparison between the states based on the mean scores for the responses given by the managers was done. Here also two sample t-tests for statistical comparison was used.

H₀: There is no difference in the means of the various objectives of the employee training between the two types of industries

H₁: There is a difference in the means of the various objectives of the employee training between the two types of industries

Table: 15 Comparison of mean scores by the managers in two major sectors of state of Gujarat and Andhra Pradesh on the various objectives of employee training

Objectives of Employee Training	Sectors	Hypothesis	Levene's Test for Equality of Variances		t-test for Equality of Means		
			F	Sig.	t	df	Sig. (2-tailed)
Developing Production Skills	Pharmaceutical / Chemical	Equal variances assumed	1.898	0.179	2.483	28	0.019
Employee Motivation	Engineering	Equal variances assumed	0.592	0.448	2.316	28	0.028
	Pharmaceutical / Chemical	Equal variances assumed	0.972	0.333	3.214	28	0.003
Organization Norms and Values	Pharmaceutical / Chemical	Equal variances assumed	3.333	0.079	-2.460	28	0.020
Developing Management Skills	Pharmaceutical / Chemical	Equal variances assumed	0.100	0.754	2.417	28	0.022

From the Table 15 it is observed that with respect (i) Developing production skill (ii) Employee motivation and (iii) Developing management skill, the managers in Pharmaceutical/ Chemical Industries give greater importance as compared those in Andhra Pradesh. Further the managers in Engineering Industries in Gujarat give greater importance to Developing Production Skills. The managers of Pharmaceutical/Chemical Industries of Andhra Pradesh think it important to provide training in Organizational Norms and Values.

Methods of Training

In order to meet the above said training objectives, Industries adopt different training methods. To know different methods adopted priority wise in different sectors of both the states, the managers were asked to give scores in 'five point scale' for the following enlisted training methods

- (a) On the job training
- (b) Experiential Training Sessions
- (c) International Seminars and Conference
- (d) Formal Class Room Sessions
- (e) National Seminars/Conferences
- (f) Organized courses within the company.

First mean score and standard deviations of the responses for various types of training in the

Engineering Sector in the state of Gujarat were computed. The results are summarized in the Table 16.

Table: 16 Focus on types of training in Engineering Industries (15) in the state of Gujarat

Types of Training	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean	
				Lower	Upper
On the Job Training	4.07	0.258	0.067	3.92	4.21
Experiential Training Sessions	2.60	0.632	0.163	2.25	2.95
International Seminar	1.00	0.000	0.000	1.00	1.00
Formal Class Room Sessions	2.13	0.352	0.091	1.94	2.33
National Seminar	2.13	0.352	0.091	1.94	2.33
Organized Courses within Company	1.53	0.640	0.165	1.18	1.89
Course Purchased from External Trainers	1.33	0.488	0.126	1.06	1.60
Training Programs Organized by Corporate	1.20	0.561	0.145	0.89	1.51

From table 16, comparing the mean scores of engineering industries in the state of Gujarat, it can be observed that ‘On the Job Training’ has the highest mean of 4.07 and the minimum standard deviation of 0.258 this means that all the companies are giving first preference to this training method. Next preferred method is ‘Experiential Training Sessions’ with mean of 2.60 and standard deviation of 0.632. This method has comparatively less mean (less than neutral) and higher standard deviation. Hence, this method is followed by a very few companies, while others do not follow. All other methods have very low mean conveying that the companies do not prefer these methods. It may therefore safely be concluded that ‘On the Job Training’ is the most preferred and expected training method.

Similarly responses about the preference for different types of training, mean and standard deviation is calculated for Pharmaceutical/Chemical Industries in the state of Gujarat.

Table: 17 Focus on types of training in Pharmaceutical/Chemical Industries(15) in the state of Gujarat

Types of Training	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean	
				Lower	Upper
On the Job Training	4.00	0.378	0.098	3.79	4.21
Experimental Training Sessions	2.93	0.799	0.206	2.49	3.38
International Seminar	1.07	0.258	0.067	0.92	1.21
Formal Class Room Sessions	2.40	0.507	0.131	2.12	2.68
National Seminar	2.00	0.378	0.098	1.79	2.21
Organized Courses within Company	1.47	0.516	0.133	1.18	1.75
Course Purchased from External Trainers	1.07	0.258	0.067	0.92	1.21
Training Programs Organized by Corporate	1.40	0.632	0.163	1.05	1.75

From table 17, comparing the mean scores of Pharmaceutical / Chemical Industries in the state of Gujarat, it can be observed that ‘On the Job Training’ has the highest mean of 4.00, it reveals that Pharmaceutical/Chemical Industries in the state of Gujarat are giving first preference to this training method. Next preferred method is ‘Experiential Training Sessions’ with mean of 2.93 and standard

deviation of 0.799. This method has comparatively less mean (less than neutral) and higher standard deviation. Some of the companies also preferred 'Formal Class Room Sessions' with mean score of 2.40.

Table 18 shows the preference for different types of training, mean and standard deviation of Engineering Industries in the state of Andhra Pradesh.

Table: 18 Focus on various types of training in Engineering Industries(15) in the state of Andhra Pradesh

Types of Training	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean	
				Lower	Upper
On the Job Training	4.33	0.488	0.126	4.06	4.60
Experimental Training Sessions	2.67	0.724	0.187	2.27	3.07
International Seminar	1.00	0.000	0.000	1.00	1.00
Formal Class Room Sessions	2.20	0.414	0.107	1.97	2.43
National Seminar	2.20	0.414	0.107	1.97	2.43
Organized Courses within Company	1.60	0.737	0.190	1.19	2.01
Course Purchased from External Trainers	1.07	0.258	0.067	0.92	1.21
Training Programme Organized by Corporate	1.67	0.617	0.159	1.32	2.01

It is evident from the above table no. 18, that 'On the Job Training' has the highest mean of 4.33 with 0.488 standard deviation; it reveals that Engineering Industries in the state of Andhra Pradesh are giving first preference to this training method. Next preferred method is 'Experiential Training Sessions' with mean of 2.67 and standard deviation of 0.724. This method has comparatively less mean (less than neutral) and higher standard deviation. Some of the companies also preferred 'Formal Class Room Sessions' and 'National Seminars' with mean score of 2.20 for both.

Table 19 shows the preference for different types of training, mean and standard deviation of Pharmaceutical/Chemical Industries in the state of Andhra Pradesh.

Table: 19 Focus on various types of training in Pharmaceutical/Chemical Industries (15) in the state of Andhra Pradesh

Types of Training	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean	
				Lower	Upper
On the Job Training	4.20	0.414	0.107	3.97	4.43
Experimental Training Sessions	3.20	0.676	0.175	2.83	3.57
International Seminar	1.00	0.000	0.000	1.00	1.00
Formal Class Room Sessions	2.13	0.352	0.091	1.94	2.33
National Seminar	1.93	0.258	0.067	1.79	2.08
Organized Courses within Company	1.33	0.488	0.126	1.06	1.60
Course Purchased from External Trainers	1.07	0.258	0.067	0.92	1.21
Training Programs Organized by Corporate	2.00	0.926	0.239	1.49	2.51

It can be seen from the above table that 'On the Job Training' has the highest mean of 4.20 and 'Experiential Training Sessions' with mean of 3.20; it reveals that Pharmaceutical/Chemical Industries in the state of

Andhra Pradesh are giving first preference to ‘On the Job Training’ and second preference goes to ‘Experiential Training Sessions’.

So, in the two states and in two different types of industries, generally ‘On the Job’ training method is the most popular training method followed by ‘Experiential Training Sessions’ which can be further seen in the following table no. 20.

Table: 20The mean scores by the managers in two major sectors of state of Gujarat and Andhra Pradesh on the importance of types of employee training.

Methods of Training	Sector	State			
		Gujarat		Andhra Pradesh	
		Mean	Std. Deviation	Mean	Std. Deviation
On the Job Training	Engineering	4.07	0.258	4.33	0.488
	Pharmaceutical / Chemical	4.00	0.378	4.20	0.414
Experimental Training Sessions	Engineering	2.60	0.632	2.67	0.724
	Pharmaceutical / Chemical	2.93	0.799	3.20	0.676
International Seminar	Engineering	1.00	0.000	1.00	0.000
	Pharmaceutical / Chemical	1.07	0.258	1.00	0.000
Formal Class Room Sessions	Engineering	2.13	0.352	2.20	0.414
	Pharmaceutical / Chemical	2.40	0.507	2.13	0.352
National Seminar	Engineering	2.13	0.352	2.20	0.414
	Pharmaceutical / Chemical	2.00	0.378	1.93	0.258
Organized Courses within Company	Engineering	1.53	0.640	1.60	0.737
	Pharmaceutical / Chemical	1.47	0.516	1.33	0.488
Course Purchased from External Trainers	Engineering	1.33	0.488	1.07	0.258
	Pharmaceutical / Chemical	1.07	0.258	1.07	0.258
Training Programme Organized by Corporate	Engineering	1.20	0.561	1.67	0.617
	Pharmaceutical / Chemical	1.40	0.632	2.00	0.926

From the above it is observed that the pattern of response by the managers in both the sectors in Andhra Pradesh and Gujarat are more or less same.

Therefore to identify the statistical significance t-tests has been carried out which are reported in the Table 21.

Further, in order to know the difference between two states regarding the importance of different types of training methods, t test was carried out with the following hypotheses and the result of the same is given in table no.21.

H₀: There is no difference in the means of the importance of various training method in two states.

H₁: There is difference in the means of the importance of various training method in two states.

Table: 21 Comparison of mean scores by the managers in state of Gujarat and Andhra Pradesh on the importance of types of Employee Training

Types of Training Hypothesis		Levene's Test for Equality of Variances		t-test for Equality of Means		
		F	Sig.	t	df	Sig. (2-tailed)
On the Job Training	Equal variances not assumed			-2.316	52.357	0.025
Training Program Organized by Corporate office / parent company	Equal variances assumed	1.820	0.183	-2.948	58	0.005

With the help of t test, it is found that in case of two training methods, there is a significant difference between the two states which have been shown in the above table. Further by analyzing the mean score for these two method where significant difference is found, it is evident that in the state of Andhra Pradesh more importance were given to 'On Job Training' and very less importance was given to 'Training Programme Organized by Corporate' as compared to state of Gujarat (refer table 20)

Training Intensity

Training intensity is a vital parameter to know the seriousness of the organization in terms of providing proper training for the enhancement of business growth. The respondents were contacted on this aspect and is compiled the information in the Table 22.

Table: 22 Focus on Training Intensity in terms of Man Days for both the states and both sectors

Sector	State	Particulars	Training Intensity in terms of Man-days per year		
			6-10 days	11-15 days	16-20 days
Engineering	Gujarat	Frequency	1.0	8.0	6.0
		Percentage	6.7	53.3	40
	Andhra Pradesh	Frequency	4.0	9.0	2.0
		Percentage	26.7	60.0	13.3
Pharmaceutical/Chemical	Gujarat	Frequency	1.0	13.0	1.0
		Percentage	6.7	86.7	6.7
	Andhra Pradesh	Frequency	10.0	4.0	1.0
		Percentage	66.7	26.7	6.7

From the Table 22 it is clearly seen that in the state of Gujarat 53.3% organizations of Engineering Sector are giving training for around 11-15 days in a year and 40% of the organization are giving training between 16-20 days in a year. It is also seen that more than 56.7% of the organizations are providing training between 11-15 irrespective of the states or sectors; As an exception it can be observed that 66.70% organizations in the Pharmaceutical/Chemical Sector of Andhra Pradesh are giving training between 6-10 days per year and 86.7% organizations in the Pharmaceutical/ Chemical Sectors in the state of Gujarat are giving training between 11-15 days in year. It leads to the conclusion that in the State of Andhra Pradesh, training has been given for fewer hours in the year as compared to Gujarat. It is also observed that in Pharmaceutical/Chemical Industries, training has been given for fewer hours in the year as compared to

Engineering as 26.7 % of the engineering organization are giving training for 16-20 days in the years while in case of Pharmaceutical/Chemical, only 6.7% of the organization are giving training for 16-20 days in the years.

Level of Satisfaction with Respect to Quality of Training

The contribution of the employees would be enhanced if they would have been imparted quality training. To extract this information, various level of managers were asked to rate his perceptions regarding the level of satisfaction with respect to quality of training in ‘five point scale’. Mean and standard deviation is first calculated and compiled in the Table 23.

Table: 23 Mean Score and Standard Deviation for Level of Satisfaction with respect to Quality of Training

Sector	Hierarchy	State				Total	
		Gujarat		Andhra Pradesh		Mean	Std. Deviation
		Mean	Std. Deviation	Mean	Std. Deviation		
Engineering	Senior Manager	3.47	0.640	2.87	0.743	3.17	0.747
	Middle Level Manager	3.73	0.458	3.73	0.594	3.73	0.521
	For other Employees	3.67	0.488	3.53	0.834	3.60	0.675
Pharmaceutical / Chemical	Senior Manager	3.47	0.834	2.33	0.816	2.90	0.995
	Middle Level Manager	3.47	0.516	3.00	0.000	3.23	0.430
	For other Employees	3.27	0.799	3.53	0.516	3.40	0.675

The mean score among all three hierarchy i.e. Senior Manager, Middle Level Manager and other employees in case of Engineering sector for both the state is considerably higher than Pharmaceutical/ Chemical. Further middle level managers of Engineering companies are considerably more satisfied with quality of training as compared to middle level managers of Pharmaceutical/ Chemical companies. On overall basis, Engineering companies for both the states, it has been observed that middle level managers (3.73) are more satisfied with quality of training as compared to senior managers (3.17) and other employee (3.60) while in case of Pharmaceutical/ Chemical, it can be studied that other employees (3.40) are more satisfied with the quality of training as compared to senior managers (2.90) and middle level managers (3.23) of both the states.

Senior managers of engineering companies of Gujarat state (3.73) are considerably more satisfied with quality of training as compared to Senior managers of engineering companies of Andhra Pradesh state (2.87). Similarly, senior managers of Pharmaceutical/ Chemical companies of Gujarat state (3.47) are considerably more satisfied with quality of training as compared to senior managers of Pharmaceutical/ Chemical companies of Andhra Pradesh state (2.33). In order to check whether it is statistically significant or not, t test is carried out with following hypotheses.

CONCLUSIONS AND RECOMMENDATIONS

There has been personal contacts and good length discussions with various managers of the selected industries in the both the states viz, 1. Gujarat and 2. Andhra Pradesh. The questionnaire was discussed and basing on Human Resource Practices prevailing in these selected industries and comparisons have been clearly seen, basing on which few recommendations have been made.

- In both the states where the societal culture is different which has an greater influence on the organizations too as they do evolve in isolations, employee training has an greater role to play towards organizational achievements. Looking towards Employee Training practices prevailing in these industries which are customised as per their requirements, but still organizations should focus more on the ‘Organizational Norms and Values’ rather than Developing Production skills and Employee Motivation. Norms are the

general expectations set by the organization for survival and sustenance and values are the embodiment of what an organization stands for, and should be the basis for the behaviour of its employees. There are various methods to ensure need based training on organizational norms and values which will help the employees to understand and inculcate the “Why” of the organization and such training could lead to better understanding of the organizational existence by the employees and boost their morale. Such type of training is not prevalent in most of the Indian Industries too.

•Proper weightage has to be given to various need based training objectives. In today’s competitive world many managers do not have time to spare towards training aspects, many companies opted towards fewer training hours and more focus on technical training only. Functional training to certain level of managers through better sensitivity training methods has to be more focused and a proper schedule for training for a longer duration in-house has to done to make the employees understand and perform better.

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