

# The Changing Evolution Aspiration of Experienced Employee form Project Engineering Units due to Globalization and its impact on attrition of experienced employees in selected Project Engineering Industrial Units in Pune.

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## Abstract:-

Industrial Units engaged in Engineering Purchase & Contract business operating in multiple domain for several years in Pune with loyal experienced employees

Due to globalization many multinational company established the base in Pune. They were eager to recruit these experienced employees to expand their business and offered innovative Human resource practice.

Due to this there was a change in aspiration of the experienced employees from the Project Engineering Industries.

Hence there was attrition of experienced employees in these project engineering industries.

Keywords:- Project Engineering, Experienced employee's, Attrition.

## Introduction to experienced Employee's

- i. Experienced employees are basically Mechanical/Chemical/Electrical & Instrumentation Engineers with experience of more than five years after the graduation/Diploma.
- ii. After gaining the competency in Project Engineering, Execution, commissioning, These Engineers have a ambition to operate as the Independent business units and generate profit. They have to achieve this position with in the stipulated period of 15 years after Graduation.
- iii. They are also eager to take new opportunity and exposure for career growth. They also have the deep interest in learning new Engineering design package, Project management software and other stimulation tools which helps them to meet variance while executing the project and enhances their ability for career growth.

### 1. Introduction to Project Engineering Industrial Units

- i. Industrial Units engaged in Engineering Purchase & Contract business.

- ii. Operating in Domains such Life science, Distillery, Dairy, Fats & Oil, and Brewery.
- iii. Usually the Project value is not large as compared to petrochemicals projects.
- iv. Hence there is limitation for allocation of resources.
- v. No standard Production system as these Project Engineering Industrial Units operate in multiple domains and as there is variance in equipment's.
- vi. Are dependent upon the Project Engineer to source the Process equipment from external suppliers within time and stipulated cost.
- vii. Has to face tough competition due to globalization,
- viii. Human resources are the vital asset for the growth of the business as it is a knowledgeable industry.

### 2. Need for the Study and statement of Problem

- i. Do to globalization many multinational companies started establishing their base.
- ii. They were very eager to poach this experienced manpower by offering attractive compensation and career growth as they want to penetrate in market.
- iii. They offered salary aligned with the performance of the experienced employees and started practising innovative HRM practice.

- iv. Thus the Human resource practice was successful in attracting the experienced employees.
- v. There was attrition of experienced employees in these selected Project Engineering units.
- vi. For knowledge Industry the retention of experienced manpower are important for stability, profitability, & growth. And there is also shortage of experienced talent to recruit the open position.
- vii. In order to revamp Human resource practice and to align it with the market conditions to reduce the attrition of these experienced employees.

### 3. Literature Review

After Review of the literature it was found that there were many studies conducted in past on study of Human resource practice and Attrition caused in Information Technology & Hospital Industries.

Even there was study conducted by Dr. R. Akila (2012): A Study on Employee retention among Executives at BGR Energy Ltd, Chennai, International journal of Marketing Financial Services & Management Research, 1,18-33.

Research Gap :-As there was no study found on “A critical study on selected Human Resource Management Practices and its impact on attrition of experienced Manpower in selected Project Engineering Industrial units in Pune”. This topic was considered for Research.

### 4. Objectives of Study:

- i. To study various aspects related to monetary, non-monetary benefits, working environment, welfare facilities, in Project Engineering Industrial Units,
- ii. To analyse the relations between Recruitment process & Attrition of the experienced skilled manpower,
- iii. To study whether facilities of Training and Career Development help in reducing the Attrition of Experienced skilled manpower,
- iv. To suggest possible improvements in selected HRM, that can help reduce attrition of experienced skilled manpower in selected Project Engineering units.
- v. Understand the changing evolution of aspirations of Experienced Employee’s from Project engineering Industrial Units due to globalization.

- vi. To find out the impact of these selected Human resource practice in cause of attrition in these Project Engineering Industrial Units.

### 5. Research Methodology, Sampling & Data Analysis

- i. Research Approach: - Pragmatic, Research Method :-Analytical , Research type :- Applied Research.  
Cause effect relationship:- Independent & Dependent variable.
- ii. Universe of Research:-Project Engineering Units selected :- (Total :- Six Project Engineering Industrial Units in Pune providing Engineering solution to Brewery, Pharma , Distillery, Dairy, Process food process domain were selected for research).
- iii. Scope of research:- Due to constraint the Experience Engineering Employees are only considered.
- iv. Samples Selected:- Experienced Employees who had left these project Engineering Industrial units are selected using probability type and Simple Random Sampling method. Response is taken on Five point Likert scale questionnaire.
- v. Data Analysis:-  
For Central tendency of the data Statistical Technique like Mean, Median. For Dispersion of data: Standard Deviation & for Volatility of response Coefficient of variation is used. Correlation: - Extent of Relation between Dependant & Independent variable.  
Testing Hypothesis: T test & Z test Variance of data between the Project Industrial Units :- One way Anova is be used .
- vi. Hypotheses
  - a. There is a direct relation between attrition and Recruitment process in the Project Engineering Industrial Units.
  - b. There is no direct relation of Performance Appraisal in cause of attrition of experienced skilled Manpower.
  - c. Assistance in Training facilities and Career developments reduces attrition of Experienced skilled Manpower .

- d. There is a direct relation between working conditions and employee satisfaction in the organizations. employees in these selected Project Engineering Units.
- e. There is significant impact of these selected Human resource practice in cause of attrition of experienced vii. Sampling Technique

| <b>Project Engineering Industrial Units</b> | <b>Number of experienced Engineering employees who left the organization between 2006-20012</b> | <b>Sample Selected as per Stanley Morgan table with 5% Margin of Error</b> |
|---|---|--|
| Project Engineering Industrial Unit A       | 75  | 63   |
| Project Engineering Industrial Unit P       | 30  | 28   |
| Project Engineering Industrial Unit M       | 50  | 44   |
| Project Engineering Industrial Unit K       | 14  | 14   |
| Project Engineering Industrial Unit F       | 14  | 14   |
| Project Engineering Industrial Unit Z       | 14  | 14   |

**Table:-1**

## 6. Results

a. Data analysis

Table 1.3:-Hypothesis Testing

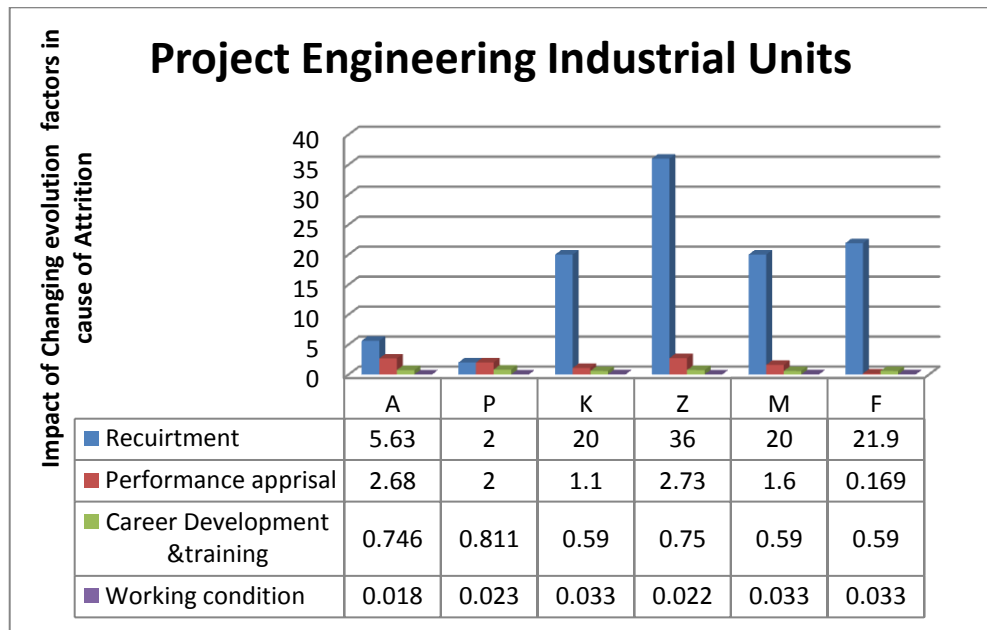
| Hypothesis | Calculated value of T test                | Value of T from table                | Hypothesis accepted or rejected | Calculated value of T test                | Value of t from table                | Hypothesis Accepted of Rejected. |
|------------|---|--------------------------------------|---------------------------------|---|--------------------------------------|----------------------------------|
| Hypothesis | For Project Engineering Industrial Unit A | Critical value of T as per the table | Status of Hypothesis            | For Project Engineering Industrial Unit P | Critical value of T as per the table | Status of Hypothesis             |
| H1         | 0.000563                                  | 2                                    | Accepted                        | 0.0002                                    | 2                                    | Accepted                         |
| H2         | 1.9                                       | 1.8                                  | Rejected                        | 1.91                                      | 1.8                                  | Rejected                         |
| H3         | 0.0000746                                 | 1.18                                 | Accepted                        | 0.0000811                                 | 1.18                                 | Accepted                         |
| H4         | 0.0000018                                 | 1.75                                 | Accepted                        | 0.0000023                                 | 1.75                                 | Accepted                         |
| Hypothesis | For Project Engineering Industrial Unit K | Critical value of T as per the table | Status of Hypothesis            | For Project Engineering Industrial Unit Z | Critical value of T as per the table | Status of Hypothesis             |
| H1         | 0.002                                     | 2                                    | Accepted                        | 0.0036                                    | 2                                    | Accepted                         |
| H2         | 1.94                                      | 1.8                                  | Rejected                        | 1.91                                      | 1.8                                  | Rejected                         |
| H3         | 0.000059                                  | 1.18                                 | Accepted                        | 0.000075                                  | 1.18                                 | Accepted                         |
| H4         | 0.0000033                                 | 1.75                                 | Accepted                        | 0.0000022                                 | 1.75                                 | Accepted                         |

7. .

8. Table:-2

For Testing of Hypothesis Statistical Package such as IBM SPSS statistic version 22 and Excel of Microsoft Windows were used.

Interpretation on Analysis of Variance for Significance Impact of these Human Resource management factors in cause of Attrition for the experienced Employees in these Project Engineering Industrial Units.



| Hypothesis | For Project Engineering Industrial Unit M | Critical value of T as per the table | Status of Hypothesis | For Project Engineering Industrial Unit F | Critical value of T as per the table | Status of Hypothesis |
|------------|---|--------------------------------------|----------------------|---|--------------------------------------|----------------------|
| H1         | 0.0002                                    | 2                                    | Accepted             | 0.00219                                   | 2                                    | Accepted             |
| H2         | 1.93                                      | 1.8                                  | Rejected             | 1.97                                      | 1.8                                  | Rejected             |
| H3         | 0.000059                                  | 1.18                                 | Accepted             | 0.000059                                  | 1.18                                 | Accepted             |
| H4         | 0.0000033                                 | 1.75                                 | Accepted             | 0.0000033                                 | 1.75                                 | Accepted             |
|            |   |                                      |                      |   |                                      |                      |

Graph:-1 It is observed from this Analysis that the Human resource Factor recruitment both internal and Lateral if not practiced properly causes a major impact for attrition of experienced employee's in these Project Engineering Industrial Units.

Calculating the one way Analysis of variance i.e. for Significance impact of these Human resource factors in cause of attrition for the experienced employee's between these project industrial units.

After calculating the critical value of F from the table with numerator=5 & Denominator=18 the value F comes to 2.77.

Whereas the value of f derived from the calculation for one way anova is 1.06. As the value of f calculated is 1.06 is less than the critical value 2.77 derived from table. Hence the statement there is a Significance impact of these Human resource factors in cause of attrition for the experienced employee's between these project industrial units is maintained.

## 9. Conclusions

| Cause   | Effect  |
|---|---|
| Lateral recruitment without verifying compensation & profile of existing employees. | Attrition of experienced employees<br>Due to dissatisfaction of getting less compensation.            |
| Lateral was recruitment done without giving opportunity for internal recruitment.   | Attrition of experienced employees was caused do to opportunity to work at higher position was denied |
| Traditional Management training was provided to manage within budget                | As the training was not enhancing the variance in execution of project and design competencies.       |
| Performance appraisal was given to honor the commitment during lateral recruitment  | Dissatisfaction due to less compensation paid to existing Employees as compared to their profile.     |

|   |   |
|---|---|
| Indigenization of technology, Process innovation were not considered    | Dissatisfaction of experienced employees as their cost saving efforts was not considered. |
| Allied infrastructure not provided in time.                             | Not able to complete the project within the variance.                                     |
| IT infrastructure & Technical data not provided at proper time & place. | Not able to complete the project within the variance.                                     |

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