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Reasons and Technical Solutions for the Lack of Employee Problem in Construction Industry

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ABSTRACT: The construction industry is a complex and challenging one, and it requires a highly skilled workforce to execute projects successfully. However, the industry also has a high turnover rate, which can make it difficult to retain qualified employees. This study explored the critical factors influencing voluntary and involuntary employee turnover in the construction industry. The study found that the most common reasons for voluntary turnover were: Low pay, Lack of opportunities for advancement, Unpleasant working conditions and Lack of support from management. The study also found that the most common reasons for involuntary turnover were: Layoffs due to economic downturns, Termination due to poor performance and Retirement. The study concluded by providing suggestions for construction companies to reduce employee turnover and improve retention. These suggestions included: Offering competitive salaries and benefits, Providing opportunities for advancement, Creating a positive work environment, Providing support from management and Investing in employee training and development. The study also suggested that construction companies should identify their existing employees' intentions and recruit new engineers who are a good fit for the company culture. Overall, the study found that there are a number of factors that can contribute to employee turnover in the construction industry. However, by taking steps to address these factors, construction companies can improve retention and create a more stable workforce.

I. INTRODUCTION

The construction sector is responsible for building a wide range of structures, from houses and factories to roads and bridges. It is a major economic driver in India, accounting for nearly 11% of GDP. The sector is expected to grow rapidly in the coming years, driven by investment in infrastructure and housing. However, it faces challenges such as high employee turnover and a poor public image.

REASONS FOR VOLUNTARY TURNOVER

Voluntary turnover is when an employee leaves an organization of their own accord. The most common reasons for voluntary turnover include salary, benefits, work-life balance, and career opportunities.

REASONS FOR INVOLUNTARY TURNOVER

Invuntary, which occurs when the employer makes the decision to discharge an employee and the employee unwillingly leaves his or her position. Involuntary turnover could be a result of poor performance, staff conflict, the at-will employment Clause, death, retirement, reduction in force (RIF).

FORMULA FOR EMPLOYEE TURNOVER RATE

Employee turnover rate is calculated by below mentioned formulae; Organisations may track their 'crude' or 'overall' turnover rates on a month by month or year by year basis, expressed as a percentage of employees overall.

$$\left(\frac{\text{NELDY}}{(\text{NEBY} + \text{NEEY}) / 2} \right) \times 100\%$$

Where,

NELDY = Number of Employees who Left During the Year

NEBY = Number of Employees at the Beginning of the Year

NEEY = Number of Employees at the End of the Year

IMPORTANCE OF EMPLOYEE TURNOVER

Construction projects in India involve a combination of clients, designers, constructors, and suppliers. The management of these projects often faces challenges in recruiting and retaining engineers. These challenges are due to a lack of focus on people-related issues, such as employee retention. The shortage of trained personnel in the Indian construction industry has led to high turnover rates.

COST OF EMPLOYEE TURNOVER

1. Hiring costs can include advertising, recruitment, administrative costs, background checks, psychological testing, and interviewing candidates.
2. Overtime costs can occur when remaining employees are required to work extra hours to cover the workload of the missing employee.
3. Morale loss can occur when remaining employees feel burdened with the extra work, resulting in stress, absenteeism, and lower productivity.
4. A negative public image can also result from high employee turnover, which can make it more difficult to attract and retain top talent in the future.

NEED FOR THE PROJECT

A study found that low pay, lack of job security, long working hours, and poor working conditions are the most common factors that make employees dissatisfied in construction firms. The study recommended that construction firms take steps to improve employee satisfaction, such as increasing pay, providing job security, reducing working hours, and improving working conditions.

STATEMENT OF PROBLEM

The aim of the present report is to study factors like salary, superior – subordinate relationship, growth opportunities, facilities, policies and procedures, recognition, appreciation, suggestions, co-workers by which it helps to know the employee turnover level in the organizations and factors relating to retain them. This study also helps to find out where the organizations are lagging in retaining.

OBJECTIVE OF THE PROJECT

1. Determine the satisfactory level of employees towards their job and working conditions. ⊥
2. Finding the factors which make employees dissatisfied about company policies and norms.
3. To know the employee turnover rate and growth of the company. ⊥
4. To know the reasons of increasing of employee turnover rate.
5. To find alternative ways to reduce employee turnover rate in construction industry.

SCOPE OF THE PROJECT

1. The study can help management identify the weaker parts of employee feelings towards the organization and provide optimum suggestions and solutions.
2. The study can help improve the three R's (respect, recognition, and reward) of employee needs.
3. The study can help management know the reasons why employees tend to change their jobs, through dissatisfaction factors in the construction industry.
4. The study can help reduce employee turnover rate in the construction industry.

DATA COLLECTION

The data collection is nothing but identifying the factors that raising employee's turnover rate of construction industry from the literature reviewed several literatures were based on the experts in construction. These factors are mainly classified on six factors. They are classified on well-defined pattern according to literatures reviewed. The following are eleven main factors which raising the employee's turnover rate in construction industry. Job performance,



Job satisfaction, Skill Decay, Salary, Superior – Sub Ordinate Relationship, Co-Workers Relationship, Growth Opportunities, Motivational Factors, Flexibility/Work Life Balance, Working Environment and Workers participation in management.

II. METHODOLOGY

The various tasks involved in this research work are listed below.

1. Review of literature.
2. Extraction of critical factors related to employee turnover and retention of engineers in construction industry.
3. Preparation of survey questionnaire
4. Distribution of questionnaire to civil engineers working in construction industry.
5. Collection of data from the respondents using random survey method.
6. Data Analysis using ANOVA (analysis of variance).
7. Interpretation of results
8. Conclusions and recommendations.

The statistical analysis is the most powerful tool for taking appropriate decisions, and hence it is adopted in this research.

DATA ANALYSIS

1. The questionnaire consisted of six parts: personal details, attitude towards job, attitude towards company, working conditions, welfare measures, and wage & salary administration.
2. Respondents were asked to rate their satisfaction with each factor on a scale of 1 to 3, with 3 being satisfactory, 2 being neutral, and 1 being unsatisfactory.
3. The survey was distributed to 65 civil engineers, and 47 responses were received.
4. The survey results showed that the most important factors affecting migration intention were salary, working conditions, and attitude towards the company.
5. The study also found that organizations can help retain their staff by offering competitive salaries, providing good working conditions, and creating a positive work environment.

Valid	Frequency	Percent	Valid percent	Cumulative percent
C1	2	4.3	4.3	4.3
C2	2	4.3	4.3	8.5
C3	2	4.3	4.3	12.8
C4	5	10.6	10.6	23.4
C5	1	2.1	2.1	25.5
C6	1	2.1	2.1	27.7
C7	2	4.3	4.3	31.9
C8	1	2.1	2.1	34
C9	5	10.6	10.6	44.7
C10	2	4.3	4.3	48.9
C11	2	4.3	4.3	53.2
C12	3	6.4	6.4	59.6
C13	1	2.1	2.1	61.7
C14	1	2.1	2.1	63.8
C15	3	6.4	6.4	70.2
C16	6	12.8	12.8	83.0



C17	2	4.3	4.3	87.2
C18	2	4.3	4.3	91.5
C19	2	4.3	4.3	95.7
C20	2	4.3	4.3	100
Total	47	100	100	

Frequency Of Respondents

Significance Of Respondents Profile On Six Groups

1. Attitude Towards Job

FACTORS	S	N	D	TOTAL	MEAN	Std. Dev.
Nature of the work	14 (29.8%)	30 (63.8%)	3 (6.4%)	47 (100%)	2.23	0.560
Job security	15 (31.9%)	28 (59.6%)	4 (8.5%)	47 (100%)	2.23	0.598
Job status	18 (38.3%)	26 (55.3%)	3 (6.4%)	47 (100%)	2.32	0.594
Quantum of the work	7 (14.9%)	26 (55.3%)	14 (29.8%)	47 (100%)	1.85	0.659
Equipment's provided by the organisation	6 (12.8%)	28 (59.6%)	13 (27.7%)	47 (100%)	1.85	0.625
Working place of the organisation	13 (27.7%)	17 (36.2%)	17 (36.2%)	47 (100%)	1.91	0.803
Other facilities of work in your organisation	14 (29.8%)	20 (42.6%)	13 (27.7%)	47 (100%)	2.02	0.766
Appreciation for good work	17 (36.2%)	26 (55.3%)	4 (8.5%)	47 (100%)	2.28	0.615
Incentives for extra work	12 (25.5%)	23 (48.9%)	12 (25.5%)	47 (100%)	2.00	0.722
Respect from organisation	17 (36.2%)	23 (48.9%)	7 (14.9%)	47 (100%)	2.21	0.690
Reward for good work	14 (29.8%)	19 (40.4%)	14 (29.8%)	47 (100%)	2.00	0.780

2. Attitude Towards Company

FACTORS	S	N	D	TOTAL	MEAN	Std. Dev.
Your feelings as an employee of IT	12 (25.5%)	25 (53.2%)	10 (21.3%)	47 (100%)	2.04	0.690
Personnel policies and procedures in force	6 (12.8%)	29 (61.7%)	12 (25.5%)	47 (100%)	1.87	0.612
Counselling made available	12 (25.5%)	25 (53.2%)	10 (21.3%)	47 (100%)	2.04	0.690
Superior's guidance	17 (36.2%)	21 (44.7%)	9 (19.1%)	47 (100%)	2.17	0.732
Relationship with superior's	19 (40.4%)	18 (38.3%)	10 (21.3%)	47 (100%)	2.19	0.770
Relationship with co-workers	19 (40.4%)	19 (40.4%)	9 (19.1%)	47 (100%)	2.21	0.750
Relationship with sub-ordinates	22 (46.8%)	19 (40.4%)	6 (12.8%)	47 (100%)	2.34	0.700
Autonomy in execution of the work	16 (34%)	24 (51.1%)	7 (14.9%)	47 (100%)	2.19	0.680



3. Working Conditions

FACTORS	S	N	D	TOTAL	MEAN	Std. Dev.
Hours of work	11 (23.4%)	32 (68.1%)	4 (8.5%)	47 (100%)	2.15	0.551
Rest intervals	10 (21.3%)	30 (63.8%)	7 (14.9%)	47 (100%)	2.06	0.604
Safety arrangements made by the Organisation	14 (29.8%)	21 (44.7%)	12 (25.5%)	47 (100%)	2.04	0.751
Work place atmosphere	13 (27.7)	17 (36.2%)	17 (36.2%)	47 (100%)	1.91	0.803

4. Working Conditions

FACTORS	S	N	D	TOTAL	MEAN	Std. Dev.
Safety measures taken by the management	15 (31.9%)	31 (66%)	1 (2.1%)	47 (100%)	2.30	0.507
First aid facilities	17 (36.2%)	27 (57.4%)	3 (6.4%)	47 (100%)	2.30	0.587
Medical facilities	16 (34%)	22 (46.8%)	9 (19.1%)	47 (100%)	2.15	0.722
Housing facilities	15 (31.9%)	23 (48.9%)	9 (19.1%)	47 (100%)	2.13	0.711
Employees Benefit Scheme	15 (31.9%)	20 (42.6%)	12 (25.5%)	47 (100%)	2.06	0.763
Provident Fund Scheme	15 (31.9%)	22 (46.8%)	10 (21.3%)	47 (100%)	2.11	0.729
Insurance Scheme	23 (48.9%)	13 (27.7%)	11 (23.4%)	47 (100%)	2.26	0.820
Leave Rules	12 (25.5%)	26 (55.3%)	9 (19.1%)	47 (100%)	2.06	0.673
Promotional policy in practice	14 (29.8%)	26 (55.3%)	7 (14.9%)	47 (100%)	2.15	0.659
Transfer policy in practice	17 (36.2%)	23 (48.9%)	7 (14.9%)	47 (100%)	2.21	0.690
Training programmes made by the organisation	16 (34%)	28 (59.6%)	3 (6.4%)	47 (100%)	2.28	0.579
Maintenance of rest rooms	14 (29.8%)	23 (48.9%)	10 (21.3%)	47 (100%)	2.09	0.717
Maintenance of Toilet and urinal	6 (12.8%)	25 (53.2%)	16 (34%)	47 (100%)	1.79	0.657

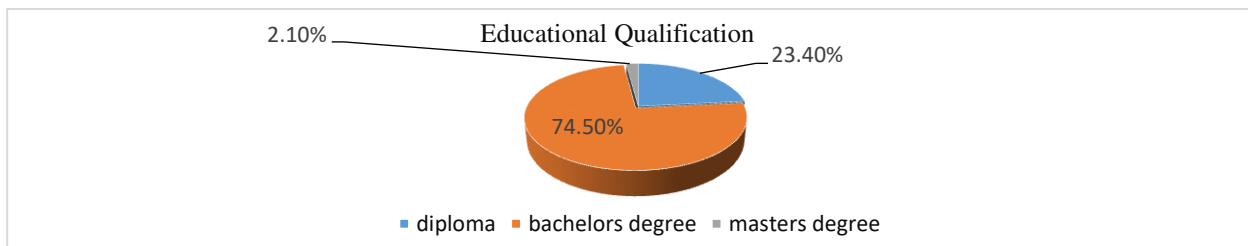
5. Working Conditions

FACTORS	S	N	D	TOTAL	MEAN	Std. Dev.
Scale of pay, allowances	11 (23.4%)	32 (68.1%)	4 (8.5%)	47 (100%)	2.15	0.551
Amount of annual payment of Bonus given by the management	15 (31.9%)	25 (53.2%)	7 (14.9%)	47 (100%)	2.17	0.670
Pay revision period	13 (27.7%)	24 (51.1%)	10 (21.3%)	47 (100%)	2.06	0.704
Awards for additional qualifications	18 (38.3%)	21 (44.7%)	8 (17%)	47 (100%)	2.21	0.720

III. RESULTS

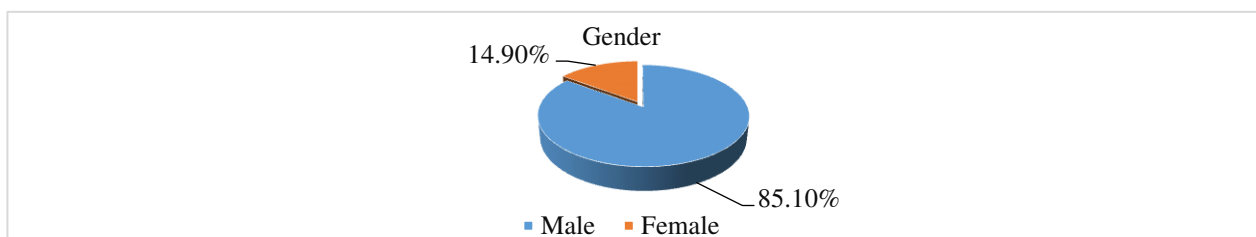
1. Educational Qualification

The data on education, supplied as part of the personal details has three types, diploma holders, bachelors and masters. 23.4% of the respondents (11 out of 47) are diploma holders, 74.5% have a bachelor’s degree (35 out of 47) and 2.1% have a master’s degree (1 out of 47). The majority of the respondents are degree holders, closely followed by diploma holders.



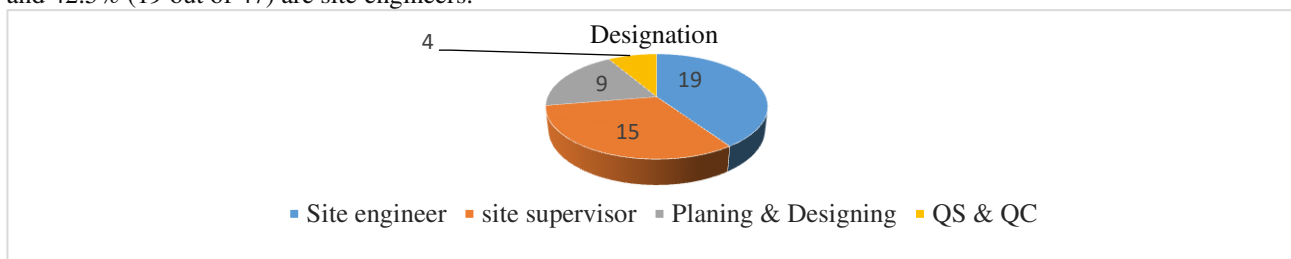
2. Gender

Among the respondents 85.1 % (40 out of 47) are males and 14.9% (7 out of 47) are females.



3. Designation

The engineers who responded to the questionnaire survey were designated as (1) planning and design engineers, (2) qs & qc engineers (3) site supervisors and (4) site engineers. The data indicates that 4.23% (9 out of 47) are planning and design engineers, 1.88 % (4 out of 47) are qs & qc engineers, 31.3% (15 out of 47) are site supervisors and 42.5% (19 out of 47) are site engineers.



4. Employee Opinion About Quantum Of Work

Valid	Frequency	Percent	Valid percent	Cumulative percent
1	14	29.8	29.8	29.8
2	26	55.3	55.3	85.1
3	7	14.9	14.9	100
Total	47	100	100	

From the above table, it was inferred that 29.8% of employees have opinion that their quantum of work is compared with the other company as high, 55.3% said it is medium, and 14.9% said it is low. It leads to conclusion most of the medium percent (55.3) peoples are having dissatisfactory level about quantum of work and an organization do not give any other extra incentives for his work.



5. Employee Opinion About Working Place

Valid	Frequency	Percent	Valid percent	Cumulative percent
1	17	36.2	36.2	36.2
2	17	36.2	36.2	72.3
3	13	27.7	27.7	100
Total	47	100	100	

From the above table, it was inferred that 36.2% of employee have opinion that their working place is have too much distance from a accommodation and project located at remote area, 36.2% said it is medium and 27.7% said working place is close to their home. It leads to conclusion 2/3 peoples had a dissatisfactory about their working place.

6. Employee Opinion About Other Facilities

Valid	Frequency	Percent	Valid percent	Cumulative percent
1	13	27.7	27.7	27.7
2	20	42.6	42.6	70.2
3	14	29.8	29.8	100
Total	47	100	100	

From the above table, it was inferred that 29.8% of employees have opinion that their facilities provided by company is compared with the other company as high, 42.6% said it is medium, and 27.7% said it is low. It leads to conclusion most of the medium percent (42.6) peoples are having dis-satisfactory level about facilities.

7. Employee Opinion About Reward For Good Work

Valid	Frequency	Percent	Valid percent	Cumulative percent
1	14	29.8	29.8	29.8
2	19	40.4	40.4	70.2
3	14	29.8	29.8	100
Total	47	100	100	

Reward is nothing but providing a certain amount of money or promotion for his/her excellent work in organization project work. From the above table it was inferred that 29.8% of employees says that their organization gives reward for good work, 40.4% have an opinion neutral, it is nothing but they do not provide reward. And 29.85% says organization do not provide reward from company.

8. Employee Opinion About PPP In Force

Valid	Frequency	Percent	Valid percent	Cumulative percent
1	12	25.5	25.5	25.5
2	29	61.7	61.7	87.2
3	6	12.8	12.8	100
Total	47	100	100	



From the above table, it was inferred that 12.8 % of employees have opinion that their organization provide a space for employee personnel policies and autonomy in work force to company is compared with the other company as high, 61.7% said it is medium, and 25.75% said it is low. It leads to conclusion most of the medium percent(61.7) peoples are having dissatisfactory level about the company policies and procedures.

9. Employee Opinion About Working Conditions

Valid	Frequency	Percent	Valid percent	Cumulative percent
1	17	36.2	36.2	36.2
2	17	36.2	36.2	72.3
3	13	27.7	27.7	100
Total	47	100	100	

Working condition is working site condition; surrounding facilities nearby site are included. It’s also include a hours of work and environmental conditions. From the above table it was inferred that 27.7% of employees are satisfy about a working conditions, 36.2 % said it is medium, and 36.2 percent employees are dissatisfy about the company policies. It leads to conclusion most of the medium percent(36.2) peoples are having dissatisfactory level about the working conditions.

10. Employee Opinion About Welfare Measures

Valid	Frequency	Percent	Valid percent	Cumulative percent
1	16	34	34	34
2	25	53.2	53.2	87.2
3	6	12.8	12.8	100
Total	47	100	100	

Welfare measures are like employee Safety measures taken by the management, First aid facilities, Medical facilities, Housing facilities, Maintenance of rest rooms, Maintenance of Toilet and urinal. Most of the employees are have opinion these above mentioned facilities are not available in site area. From the above table it was inferred that 12.8% of employees are satisfy about a welfare measures, 53.2% said it is neutral, and 36.2% employees are dissatisfy about the welfare measures provided by a company. It leads to conclusion most of the neutral percent(53.2) peoples are having dissatisfactory level about the employee welfare measures.

IV. CONCLUSION

The survey results showed that the most important factors affecting employee turnover were lack of promotion based on performance, lack of performance bonus or incentives, and unsatisfied with salary package. The study also found that the most important factors for retaining employees were positive working conditions, good work environment, and chance of communicating openly with superiors. The study concluded that organizations can help reduce employee turnover by addressing the factors that were identified in the study.

V. SUGGESTIONS

The study provides three suggestions to reduce employee turnover are as follows:

1. **Reward and recognition:** Reward and recognize employees who go the extra mile.
2. **Growth opportunity:** Provide challenging and skillful jobs to employees so they can prepare for top positions.
3. **Work environment:** Create a stress-free and cheerful work environment.



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