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ANALYSIS OF LABOUR RISK INVOLVED IN CONSTRUCTION INDUSTRY

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Abstract - *The construction industry plays a major role in the economic development of the country. There several risks allied with the construction industry. Managing risks in construction projects has been recognized as a important management process in order to achieve the project objectives in terms of cost, time, quality, safety and environmental sustainability. This study is related to labour who directly involved in construction process, and the surveys have been conducted with various Engineers/contractors, site engineer in TamilNadu. The opinion at the various levels of management through the standard questionnaires has been collected and results are analysed. From this study, suggestion and recommendation has been formulated to overcome those risk mitigations.*

1. INTRODUCTION

Today, India is the second fastest growing economy in the world. The Indian construction industry is an integral part of the economy and a conduit for a substantial part of its development investment and peoples rising expectations for improved quality of living. The construction industry is a global industry known for its generation of jobs at different skill and professional levels. In terms of value of its output, its global market is reported to be around $1.5 trillion as on today. But only a small portion of it is distributed among its workers. In world labour market, construction workers are said to be over 100 million, constituting 6-7% of the world labour force.

1.1 Labour

Labour is defined as a task that requires the exertion of body and mind or both. Labour is an important resource in construction because it is the one that combines all the other resources namely materials, plant, equipment, and finance in order to produce the various construction products. Labour is the one resource that affects all the other resources and it is more susceptible to improvement. Consultants via specifications, control material and plant costs, and profit and overhead are generally controlled by the competition. This then leaves labour as the one resource open to improvement.

Construction labour is an entry-level position. Some labours are employees of a construction company, but a large number are self-employed. "Construction labours perform a wide range of physically demanding tasks at building and highway construction sites, such as tunnel and shaft excavation, hazardous waste removal, environmental remediation and demolition", says the BLS. Labours work and assist in a variety of tasks including framing and drywall, masonry and painting, insulation or flooring installation, roofing, road and bridge building, and just about any other construction job that doesn't require certification. Construction work is physically demanding.

1.2 Division of Labours

The division of labour of construction encompasses a diverse range of skilled and manual labour. Among the most common construction trades are those of Carpenter, Electrician, Heavy equipment operator, Iron workers, Laborer, Mason, Plasterer, Plumber, Pipefitter, Sheet metal worker, Steel fixer (also known as a "rod buster") and Welders.

2. LABOUR SHORTAGE

There's an ongoing debate about how much slack there is in the labour market. It's a complex topic. But one argument, heard that repeatedly is that the quality of available labour is lacking. Recent surveys from the National Association of Homebuilders reveal that labour shortages have only been getting worse for builders, subcontractors and remodelers.

Table -1: Factors Indentified

Low wages	Job adoptability	Due to their educational qualification
Inadequate basic amenities	Lack of respect	Improper training
Other easy job or other opportunities	Lack of confidence in job	Lack of security of income
More possibilities of accident	Lack of communication	Lack of lifetime and social security benefits

Unsafe working condition	Lack of faith on organization	Unable to adjust with the work situation

3. DATA ANALYSIS

In this chapter discuss the analysis outcome from the data collected. It covered questionnaires analysis, semi-structured interview and discuss of the findings. The questionnaires were distributed to construction professionals, building contractors, site engineers and labours in and around coimbatore district. The questionnaire were set to find out the labour shortage in construction, from engineers/contractors perception, site engineers perception and labour point of view towards decreasing labours in construction industry.

The data was analysed by calculating the frequencies and mean of the findings. On the other hand, the structured interview were conducted with the building engineers/contractors, site engineers and labours in and around coimbatore through discussions are made to render a bigger insight and understanding of the labours and construction industry.

The data was analysed based on the data collected from the respondents. Respondent's are building engineers/contractors, site engineers and labours. Totally of thirty two (32) questionnaires were distributed, 25 were responded to questionnaire properly.

To find the factors, the companies were chosen for conducting direct interviews are low, medium, and high level companies. The companies chosen for finding the factor by questionnaire survey are low and medium level companies in and around coimbatore, since the affect maximum by labour shortage.

3.1 RELATIVE IMPORTANCE INDEX (RII) ANALYSIS

The survey evaluation was done using Relative Important Index (RII) method and found the top most factors leading to the labour unavailability at construction industry. The following formula is used to calculate the relative importance index. The survey evaluation was done using Relative Important Index (RII) method and found the top most factors leading to the labour unavailability at construction industry. The following formula is used to calculate the relative importance index.

Formula used in **Relative Important Index**

$$\Sigma \frac{W}{AN}$$

Where,

RII Relative Importance Index
— W, weighting given to each factor by respondent,
A is the highest weight, N is the total number of respondents.

3.2 DESIGN OF QUESTIONNAIRE

Questionnaire is designed to identify the problems of labour in the construction industry which leads to labour shortage of construction projects. The questionnaires are prepared with reference of literature reviews and by direct interviews with Engineer /contractor, Site Engineer, labour, since field people facing labour problem regularly.

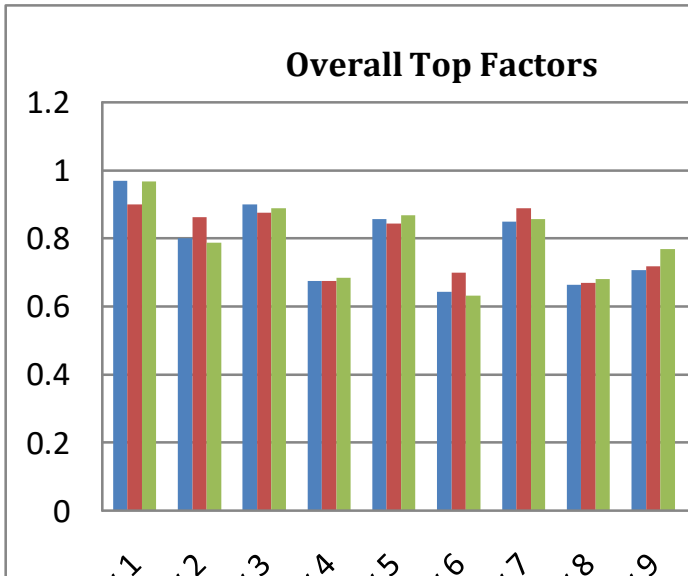
Questionnaire mainly divided into three divisions respectively. First division consist of surveyor details, second division consist of respondent details and third division consist of labour factors.

Importance scale for ranking the factors:

Very High	High	Moderate	Low	Negligible
5	4	3	2	1

Questionnaires are given to get the perspectives of Engineer/Contractor, Site engineer, Labour.

Chart -1 : ANALYSIS OF OVERALL TOP FACTORS BY CHART



4. CONCLUSIONS

This chapter gives the conclusion of the research and final suggestions to minimize the labour shortage in construction industry. The entire Indian construction community faces the problem of the skilled and semi-skilled labour shortages. This study indicates the problems of the construction labourers in and around coimbatore which leads to labour shortage. The main objective is to identify mismatch between labour and management and to find compromising technique to reduce the labour shortage.

From this research, observed that the Engineer/contractor, site engineer and labour do not have proper system to maintain the relationship and control among them.

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BIOGRAPHIES

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