



# IDENTIFICATION OF FACTORS AFFECTING THE PERFORMANCE AMONG LABOURERS IN CURRENT CIVIL ENGINEERING PRACTICES

B.Vijay Antony Raj and Mrs.P.S.Kothai

*II Year M.E., (CEM), Department of Civil Engineering, Kongu Engineering College, Erode-638052, 9944587528  
Associate Professor, Department of Civil Engineering, Kongu Engineering College, Erode-638052, 8508676062*

*[bvijayantonyraj@gmail.com](mailto:bvijayantonyraj@gmail.com)      [dkothai@yahoo.com](mailto:dkothai@yahoo.com)*

## ABSTRACT

*Human Resource Management or HRM is the process of managing people in a company/firm as well as managing the existing inter-personal relationships. These two processes are key in the success and growth of a business. Human resource management is the management process of an organization's workforce, or human resources. It is responsible for the attraction, selection, training, assessment, and rewarding of employees, while also overseeing organizational leadership and culture and ensuring compliance with employment and labour laws. HR now focuses on strategic initiatives like mergers and acquisitions, talent management, succession planning, industrial and labour relations, and diversity and inclusion.*

*Successful implementation ensures that all employees know their role, career path and also feel part of an organization which is able to manage and reconcile their expectations as well as those of the organization and its objectives. This project is done in identification of factors irrespective to labours.*

*Based on those factors a questionnaire has been prepared in labours point of view. In this thesis , questionnaire survey have been conducted with various companies among 75 labours and using SPSS software their response have been extracted for studying the impact of human resource management practices on productivity and financial performance in construction industry and appropriate solution was given for all impacts.*

*Keywords: Human resource management, Labours, Engineers, Entrepreneurs, Response, Analysis*

## I INTRODUCTION

### 1.1.GENERAL

The process of attracting, developing and maintaining a talented and energetic workforce to support organisational mission, objectives and strategies is the ultimate aim of human resource management. HRM is the process of finding out what people want from their work, what an organization wants from its employees, and then matching these two sets of needs. Purpose of this research is to improve management strategies, decrease the mismatch between required and available skilled labor and to discuss the consequences of ignoring the interests of craftsmen. Perhaps most important, the consultants can provide the supervisor and crew with the training that will yield the greatest productivity improvements.

### 1.2 NEED FOR HUMAN RESOURCE MANAGEMENT

To improve the quality of human resource management practices.



- To decrease the total cost and duration of the project.
- To eliminate unnecessary labour cost involved in construction

### 1.3 OBJECTIVE

The main objective are

- To study the impact of human resource management among construction labours.
- To identify the current scenario followed in human resource management in Civil Engineering field.

## 2.0 FACTORS IDENTIFICATION

There are some factors which influence HRM at a greater level. These factors were identified based on personal analysis and literature study. Personal analyses of construction project managers were done.

### 2.1 FACTORS IRRESPECTIVE TO LABOURS

#### 2.1.1 PHYSICAL FACTORS

Site congestion factor will never enable the labor to do work in comfortable manner and over time work will not give good productivity in any job. In most of the cases design complexity will affect the speed of work.

#### 2.1.2 ECONOMIC FACTORS

On time payment should be done right at the time when the work is accomplished. Discontinuity of work schedule will affect labors financial status and sufficient amount of pay should be given to labor.

#### 2.1.3 PSYCHOLOGICAL FACTORS

Psychological factors deals will many parameters. In civil Engineering point of view ,In recent years the cultural difference is making the worker to work uncomfortably and work satisfaction with respect to job is very much necessary.

#### 2.1.4 ORGANIZATIONAL FACTORS

Quality of work is good/maintained in firm. Sufficient Crew size should be provided by the firm for accomplishing the task. Accommodation and food should be maintained in a better manner by the top manager.

#### 2.1.5 ENVIRONMENTAL FACTORS

It is very clear to mention that climatic condition will affect the working performance but the firm is the primarily responsible for resolving HVAC problems to labors. The project manager and the site supervisor should always maintain the site condition in a good manner.

#### 2.1.6 DESIGN FACTORS



Innovative design methodology creates discomfort in work but proper training approach will eradicate this problem. It is must to say that violation of code practices by the firm should be totally abolished only the design problems won't occur.

#### *2.1.7 MATERIAL FACTORS*

It is necessary to supply quality materials by the firm at any cost but in some cases desolate materials are used in small scale firms. Another serious problem is the co-workers are mishandling the materials due to lack of training.

#### *2.1.8 EQUIPMENT FACTORS*

Usage of mechanical equipment's for an prolonged period of time is still found in most of the firms and due to this factor equipment malfunctioning will take place oftenly.It is necessary to have proper maintenance of equipment and proper training for operating equipment's to the labor's.

#### *2.1.9 PROJECT FACTORS*

Sufficient men and materials are not found in some working site due to this factor the time period for accomplishing a work is delayed. A good transportation facility should be provided by the firm to the labors.

#### *2.1.10 EXTERNAL FACTORS*

Political / Governmental problems often aroused in some firms and due to this work schedule is disturbed .In small scale firms, resources are managed in an improper manner whereas in partnership based firms contractual conflicts are found.

### **3.0 DATA COLLECTION AND ANALYSIS**

#### **3.1 GENERAL**

Various data's have been collected for designing the questionnaire. A translated questionnaire in Tamil language has been prepared, for the labors for convenient purpose.

#### **3.2 QUESTIONNAIRE DESIGN**

The design of questionnaire was done based on the analysis made in various literatures reviews. The design of questionnaire was done based on the factors to be considered irrespective to labours.

#### **3.3 QUESTIONNAIRE SURVEY**

The prepared Questionnaire on human resource management in Construction industry is distributed to 75 labors and their response have been extracted Responses from all three levels (large scale, medium scale and small scale) of companies are equally distributed.

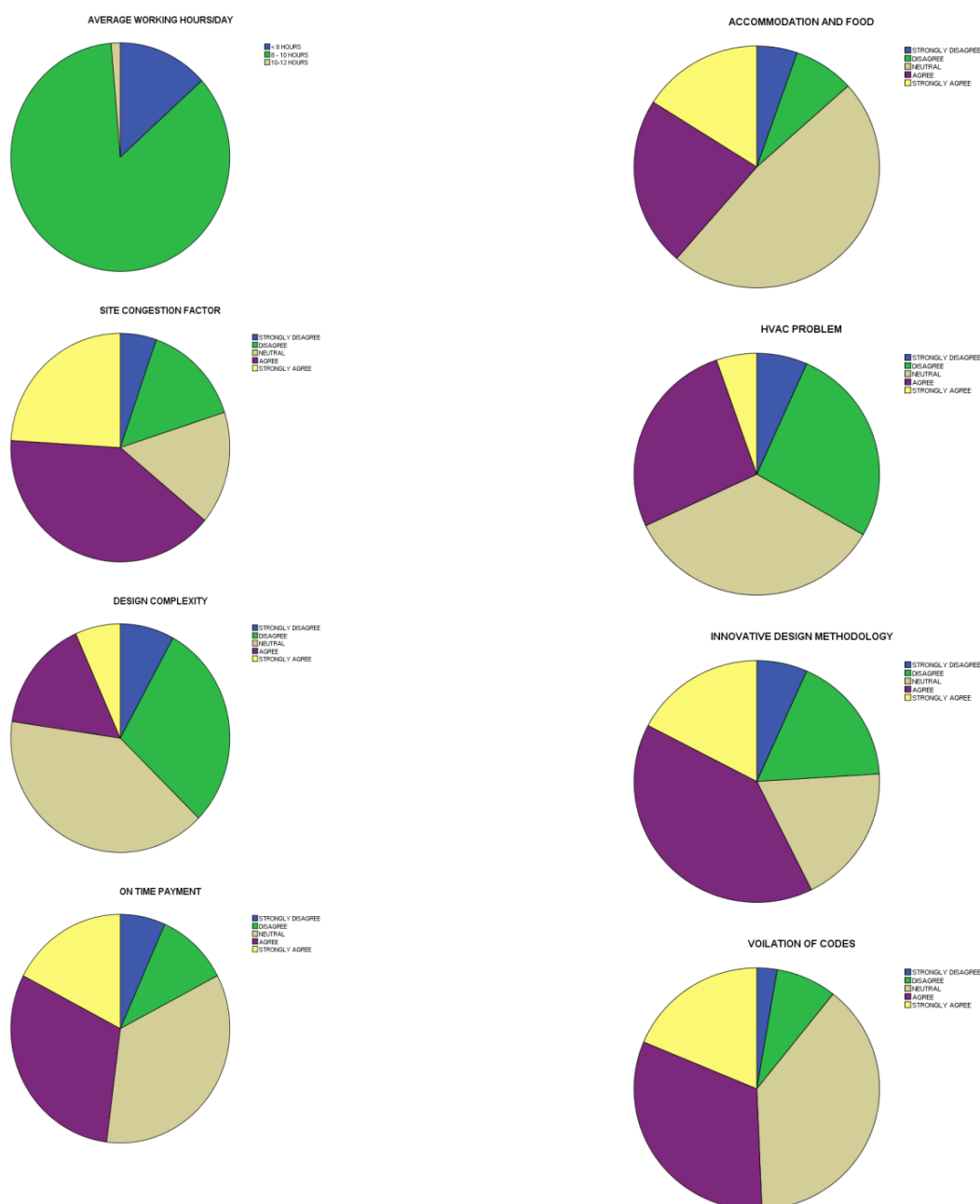
#### **3.5 DATA ANALYSIS USING STATISTICAL TOOL**



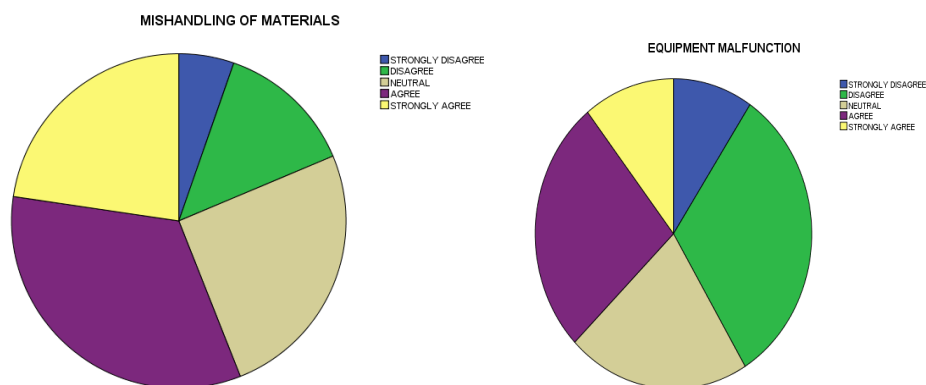
The answered questionnaires were collected and using SPSS software it is analysed.SPSS Statistics is a software package used for statistical analysis. Long produced by SPSS Inc., it was acquired by IBM in 2009, and current versions are officially named IBM SPSS Statistics.

#### 4.0 RESULTS AND DISCUSSIONS

SPSS 17, a statistical tool is used to analyze the obtained data from Questionnaire. The values should be labeled in variable view of SPSS and the obtained data should be filled in data view.







## CONCLUSION AND RECOMMENDATIONS

From the response attained from various labors in many construction sites, the following are some of the inferences made from the obtained results which possess >50% impacts.

1. 64 % of the people fairly agree that site congestion is creating them to work uncomfortably and 20 % of people disagrees this statement but 16% of people gave neutral answer for this factor. However this explains that site congestion will reduce the productivity of a labour in high range.
2. 57 % of the people fairly agree that innovative design methodology will discomfort their job and 24 % of people disagrees this particular statement but 19 % of the people answers neutrally for this statement. Hence normal design methodology has to be adopted in constructional works.
3. 52 % of people neutrally answers that they possess good satisfaction in their work and 32 % of people agrees this statement but 16 % of people states that they didn't get work satisfaction in their job. So, proper job satisfactory method has to be handled by the firm in such cases.
4. 54% of people agree that their firm is providing quality materials for construction, 32% of people answers neutrally to this statement and the balance 14% of people disagree this statement. Thus it is the primary duty of all firms to provide good quality materials for construction.
5. 60% of the people agrees that their co-workers are mishandling materials due to lack of training and 20% of people answers neutrally to this statement but the balance 20% of people disagrees this statement. Thus, sufficient training is essential to labours for handling materials in an proper manner.

## REFERENCES:



1. **Arthur, J. B.** (1994) “Effects of human resource systems on manufacturing performance.” *Acad. Manage J.*, 37.
2. **Brandenburg, S. G.** (2004) “The Tier I Workforce Management Strategy: Concept and application.” Ph.D. thesis, University of Texas at Austin, Austin, Tex.
3. **Borcherding, J. D., Glover, R. W., Haas, C. T., and Tucker, R. L.** (2001) “Metric-based implementation of the Tier II Work Force Strategy.” Rep. 20, University of Texas at Austin, Austin, Tex.
4. **Castañeda-Maza, J.** (2002) “Workers’ skills and receptiveness to operate under the Tier II construction management strategy.” Ph.D. thesis, Univ. of Texas at Austin, Austin, Tex.
5. **Construction Users Round table** (UP-403 March 2005) “Construction Labor: Managing the Construction Workforce”.
6. **Construction Users Round table** (R-411 November, 2009) “Construction Workforce: Building Comprehensive Labor Market Information”.
7. **Chang, S.-W.** (2002) “Development and assessment of the Tier II Work Force Strategy implementation index.” Ph.D. thesis, Univ. of Texas at Austin, Austin, Tex.
8. **Donald I.Hamilton** (Summer 2006), *Pakistan Economic and Social Review* Volume XLIV, No. 1 pp. 1-18 “Contract Staff Management System In The Construction Industry In Nigeria”.
9. **Ferris, G. R., Russ, G. S., Albanese, R., and Marlocchio, J. J.** (1990). *Human Resource Planning*, 133.
10. **Friedman, B., Hatch, J., and Walker, D.** (1998) *Delivering on the promise: How to attract, manage, and retain human capital*, Free Press, New York.
11. **Fagbenle Olabosipo I. Ogunde Ayodeji O. Owolabi James D.** (Vol.2, No.2, May 2011) ISSN 2039 - 2117 *Mediterranean Journal of Social Sciences*, “ Factors Affecting the Performance of Labour in Nigerian Construction Sites” *Department of Building Technology Covenant University Ota, Ogun State, Nigeria.*
12. **Gratton, L., Hailey, V., Stiles, P., and Truss, C.,** eds. (1999) *Strategic human resource management*, Oxford University Press, New York.
13. **Hans e. Picard, sc.d.,** pres/ceo, p+a innovators, corp. (2004) by the construction management association of America “Driving Down Construction Project Labor Cost”.
14. **Huselid, M.** (1998). “The impact of human resource management practices on turnover, productivity, and corporate financial performance.” *Strategic human resource management: A reader*, C. Mabey, G. Salaman, and J. Storey, eds., Sage Publications, London.
15. **Henry Mwanaki Alinaitwe** (April 2006 ) “Labour Productivity in the Building Industry – Studies of Uganda” *Licentiate Thesis*, ISSN 1651 – 0380, Construction Management Publications ISBN 91–85257–05–2 Construction Management 06/1020-SE .

#### LIST OF PUBLICATIONS :

- “Study on the Impact of Human Resource Management in Construction Industry-Phase-I” in the International Conference on Emerging Trends in Engineering and Technology ICETET



2013 on 4th – 5th, October 2013 at Munnar organized by Business management research (BMR).

- **“Study On The Impact Of Human Resource Management Practices On Turnover, Productivity And Financial Performance In Construction Industry(50 Response)-Phase-II”** in the International Conference on Advances in Industrial Engineering Applications, ICAIEA2014 January 6-8, 2014, Anna University, Chennai.
- **“Study On The Factors Affecting The Performance Of Labours In Indian Construction Industry ”** in the International Conference on Engineering Technology and Science, ICETS’ 14, February 11-12-2014, Rasipuram, Namakkal.