Overview Of Human Resource Management System In Construction Industry

Abhishek A. Sutar, Aditya P. Mehendale

Lecturer, Department of Civil Engineering, Rajarambapu Institute of Technology (An Autonomous Institute), Islampur, Sangli, Maharashtra, India

@gmail.com

Abstract: Human Resource Management or HRM is the process of managing people in a company/firm as well as managing their existing interpersonal 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 labor laws. HR now focuses on strategic initiatives like mergers and acquisitions, talent management, succession planning, industrial and labor relations, and diversity and inclusion.

Keywords: HRM, Human Resource System.

1. Introduction

The construction industry is the second largest industry of the country after agriculture. It makes a significant contribution to the national economy and provides employment to a large number of people. The use of various new technologies and deployment of project management strategies has made it possible to undertake projects of mega scale. In its path of advancement, the industry has to overcome a number of challenges. However, the industry is still faced with some major challenges, including housing, disaster resistant construction, water management and mass transportation. Recent experiences of several new mega-projects are clear indicators that the industry is poised for a bright future. It is the second homecoming of the civil engineering profession to the forefront amongst all professions in the country. Human resource management has a significant influence in the construction industry. Although construction technologies and management techniques have advanced rapidly, project managers still need to pay more attention to people management. Human resources still account for the majority of costs in most construction projects. International construction projects normally require a longer time span and more parties are involved. HRM is also a significant aspect of the whole planning and project management process in construction projects, in particular international construction projects that involve foreign firms as collaborators or competitors. The complex international construction climate, caused by increased global price competitiveness, development of technologies, changing industry and employment legislation, and changing workforce composition has prompted project managers to utilize their employees more effectively to gain competitive advantage and project success. elephone, Inc.

2. HRM in International Construction:

HRM plays an important role in the process of project management. Although HRM continues to operate with the most basic of personnel functions, which differ little from the traditional practices of personnel management, HRM has qualitatively developed in its strategies. International construction projects are one of the activities of this industry, which involve multinational participants from different political, legal, economic and cultural backgrounds. HRM has the potential to be of critical importance in the international construction project for the way in which various employees, despite the casual nature of employment, are benefited from the process of the project. HRM can also contribute to success in achieving the main objectives of attaining target dates, meeting financial plans and controlling the quality of the final project. Practically, the usual requirement is for a business strategy to be translated into human resource practices. HRM plays an active role in this process. Human resource managers need to develop human resource strategies based on the defined business strategies. As a consequence, a human resource strategy directly influences the success of a business. In construction, effective and efficient HRM strategies positively affect costs, schedule and quality at the project level.

3. HRM at the Project Level:

Construction is a project based industry which involves all project participants such as clients, designers, contractors, constructors, and consultants. Most project participants have a short-term relationship of cooperation during the project period. Often they can be from different cultural backgrounds, and also possess different construction professional and skill levels. Due to the characteristics of construction projects and various project participants, an increasingly urgent need is to implement HRM to manage relationships among project participants, improve team performance and promote value for individuals in construction projects. Human resource managers need to consider multicultural factors when they constitute and implement HRM strategies and practices at the project level. At each level there is a significant difference in the strategic goals of HRM. At the company level HRM strategies should ensure that the company's human resource requirements for the long term are met both in terms of numbers and categories of employee. In the construction industry, a company needs project managers to make HRM decisions at the project level. Therefore, project managers need to depend on the natural characteristics of projects to establish a specific strategy that is suitable for the needs of employees at the project level. The particular human resource strategies for a
project need to focus on short-term human resource requirements to accomplish a construction project successfully. There is also a difference in training between HRM at the two levels.

4. Organizational Structure:
The main features of line organization are as follows:
1. Orders and instructions flow from top to the bottom whereas requests and suggestions move from bottom to top.
2. The principle of unity of command is the most salient feature of this type of organization. In simple words, the orders are received by the subordinates from one boss.
3. The subordinates are accountable to their immediate superior.
4. There are limited numbers of subordinates under one superior.
5. This is simple to operate and control.
6. Co-ordination can be easily achieved.

![Fig. 1: General Organizational Structure](image-url)

5. Responsibilities and Authorities of Key Personnel:
Responsibilities and authorities are defined and strictly followed by each personnel.

a. Proprietor:
1. Business Planning
2. Overall responsible for quality system.
3. Define and approve quality policy and quality objectives.
4. To carry out periodical review of the Quality System for its adequacy & effectiveness.
5. Chairperson of management review.
6. Appointment of management representative.
7. Provision and allocation of resources.
8. Monitoring and control of finance, accounts and administration activities.
9. Approval of supplier selection.
10. Communicate the statutory and regulatory requirements and ensure the compliance.
11. Define responsibility and authority of function in-charge.

b. CEO:
1. Overall responsible for operations of construction.
2. To establish procedures for quality management system.
3. Define functional objectives and monitoring the achievement.
4. Review of customer requirement.
5. Monitoring the construction development activities.
7. Monitor customer satisfaction.
8. Monitor and resolve problems related to the construction, process & quality systems.
9. Initiate corrective and preventive actions.
10. Identify training needs of himself and function in-charge.

Member of management review meeting.

c. Manager:
1. Overall administration, day to day management.
2. Monitoring the construction activities and ensure that construction is carried out under controlled condition.
3. To keep update recorded regarding immovable property (legal).
4. Monitor the performance of personal.
5. Daily manpower planning.
6. Ensuring that processes needed for the quality management system are established, Implemented, and maintained.
7. Reporting to top management on the performance of the quality management system, and note needed improvements.
8. Liaison with Municipal Corporation, legal dept., non govt. organization.
9. To ensure the worker are aware about the relevance and importance their activities and how they contribute to the achievement of quality objectives.
10. To monitor safety provisions and ensure the safety rules are followed at company.
11. To monitor and resolve the problems relating to the office work, process & quality system 12. To identify training need and provide training to staff and workers.
12. To maintain the quality records.
13. To recruit the employees and workers as per the requirement.
14. To calculate the salary and wages of employee.
15. To take disciplinary actions in case of misconduct.
16. To monitor and compliance of statutory & regulatory requirements related to employee.

d. Project Engineer:
1. Overall responsible for construction related in-coming, in-process, final inspection & testing activities.
2. Complete responsibility of the smooth working of the project.
3. Co-ordination with architectural agency, structural consultants, and other consultants for completion of the scheduled work in time and quality.
5. To ensure customer requirements are fulfilled.
7. Approve department documents.
8. Monitoring and control customer complaints and taking corrective actions.
9. Member of management review.
10. Analysis of non-conformity and initiate corrective actions.
11. Plan and execute actions to achieve functional objectives.
12. Monitoring and control the calibration activities.
13. To monitor and maintain good housekeeping at department.
15. Advise the management on new ideas, developments, economy etc & manage practical implementation.
16. Pass on all management decision, information to site staff &to concerned office staff.

e. Site Supervisor:
1. Day- to-day supervision of ongoing construction work.
2. Maintain proper labour force to complete the specified departmental work.
3. Assist the junior engineer in technical checking the ongoing work.
4. Check and control the wastage of material on site.
5. Co-ordinate with the respective agencies to keep up the speed of project completion.
6. Check site cleaning regularly after the closing of the day's work.
7. Check and control unnecessary movements of outsider of the premises.
8. Collect departmental labor payments from the Head office and make payments to laborers with due receipts or vouchers.
9. Inform the senior Engineer of any requirement of materials.
10. Check the material received & prepares quality reports.

f. Purchase In-charge:
1. Responsible for evaluation and selection of new supplier &periodical evaluation of suppliers.
2. Responsible for procurement of raw materials, consumable and other items.
3. Determination of monthly requirement of raw material and consumable.
5. Review and issue of the purchase orders/ schedule to supplier and follow up for delivery.
6. Responsible for ensuring timely delivery of materials for construction.
7. Responsible for maintaining the records of suppliers.
8. Monitoring the performance (Delivery & Quality) of supplier.
10. Interacting with suppliers for corrective & preventive action.
11. Planning of supplier payment (with duly signed by purchase in-charge & Project Engg.)
12. Cooperation with account for release of supplier payment.
14. Inventory control of materials at site should be controlled.
g. Store In-charge:
1. To receive the material from supplier and prepare the receipt.
2. To receive receipt approved from purchase in-charge.
3. To store the material at location.
4. To issue the material to construction and other department as per requirement.
5. To monitor and control the shelf life items.
6. To provide proper identification of the material in stores.
7. Periodic verification of stock and re-order quantity.
8. To monitor the minimum inventory level of fast moving items.
9. To preserve the quality of material in stores.
10. To maintain the records related to store activities
11. Inform the senior Engineer of any requirement of materials.
12. Check the material received & prepares quality reports.

h. Chief Accountant:
1. Overall responsible for accounting function.
2. Verification and passing of supplier bills.
3. Planning of supplier payment and release of payment as per management approval.
4. Reconciliation of supplier payment.
5. Bank reconciliation.
6. Compliance of statutory and regulatory requirements related to Excise, VAT, Income tax etc.
7. Submit MIS data to management as per their requirements.
8. Attending the finance audit.

i. Junior Manager:
1. Preparation of invoice.
2. Monitoring the receivable from customer and follow up for outstanding payment.
3. Payment of employee salary (weekly).
5. Attending the finance audit.
6. Compliance of finance audit queries.
7. Payment Recovery.
8. Planning of supplier payment and release of payment as per Dept head approval.
9. Keep maintain Employee & contractors advances be update.

j. Legal Manager:
1. To keep healthy & up to date record relating to court matters.
2. To keep update record regarding immovable property (legal).
3. To co-operate the clients regarding the legal affairs.

k. Sales Manager:
1. Ensure the customer requirements throughout the organization.
2. Sales regarding independent flat units, row houses, pent houses if any.
3. Monitoring the receivable dues from customer and follow up for outstanding payment.
4. To look after the parking allotment.
5. To ensure that customer requirements are determined and met with the aim of enhancing customer satisfaction.
6. The team shall co operate inter alia with marketing & advertisements regarding our projects & co operating with the proper presentation of marketing & advertisements.

l. Office Boy:
1. To keep cleanliness in office & office premises.
2. To keep inwards - outward record be update.
3. To serve Tea, Coffee, Water to office staff as well as client also.

6. Factors affecting HRM:
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.

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

b. 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.

c. 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.

d. Organizational Factors
Quality of work is good/maintained infirm. 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.

e. 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 labor. The project manager and the site supervisor should always maintain the site condition in a good manner.

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

g. 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.

h. 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 often. It is necessary to have proper maintenance of equipment and proper training for operating equipment’s to the labor’s.

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

j. 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. Above factors are studied and analyzed for their impact on human resources.

References:

