

To Study the Performance of Management Team for Construction Project

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ABSTRACT

Now a day's infrastructure construction increases due to development of our country. It requires large numbers of management staff & labours with high performance. Because as the performance of team increases, its work should be efficient and safely without any disturbance. Generally, a construction team consists of owner, Project Manager, Engineer, contractors and labour. Each team member has a definite role and responsibility about the project. The performance of team depends upon the working of each team member. So for that it is necessary to act each team members as per the goals & objectives. The performance of the team can be increased by pre planning the well goals & objectives and using the simple methods for construction which reduce the confusions on team minds and makes the work safely. The performance of team mainly depends upon seven characteristics such as team leadership, team goals & objectives, management support, roles & responsibility, team task processes, team relationship, team communication. From this conclude that the performance of team increases with developing the seven characteristics and solving the problem during the construction by the higher authority and maintaining good working environments for the work.

Keywords: Performance, Teamwork, Characteristic, Working Environment.

1. INTRODUCTION

Performance of team increases the efficiency & working of team in a construction project. It refers to ability and power of the individual with team. A performance of study predicts the completion of construction project with estimated cost within the stimulated time.

Team working is characterized by mutual trust and openness, where problems and risks are shared and resolved collectively by the integrated project team easy in principle, more difficult to achieve in practice, especially where one or more of the parties have not worked in that way before. But team working is simply common sense. It is the starting point on which relationships with other parties should be based and applies just as much to the internal relationships between the members of the client's in-house project team as to the working

relationships between members of the client organization and those of the supply team. It does not replace proper and appropriate management structures and procedures. It is a pragmatic way of working together to find ways of delivering the project to the required quality within budget and within the agreed timeframe. It should promote greater openness and encourage earlier involvement by the supply team in the project.

1.1 Scope of Study

The majority opinion of specialists in various fields, teamwork should help both to improve company performance and also to boost employee's wellbeing. Provided that the conditions of autonomous decision making are in place, with the corresponding powers and responsibilities for assigned tasks,

teamwork enhances employee's interest and motivation, not just in the context of the employee's work task but also in the context of the corporate strategy as a whole. The key to increased company productivity should be increased employee satisfaction. Leading researchers in the field of work organization are convinced that people working in a team function more efficiently, are less prone to stress and make a greater effort in their work.

In present era, developing country requires tremendous growth in infrastructure for that construction requires huge cost and team members. Also time period is comparatively short. To acquire this, construction project requires improvement by increasing performance.

1.2 Objective of Study

The main objectives of this project are as given below:

1. To investigate the relationship between site management team & construction project performance.
2. To study the performance of management of the team.
3. To identify the correlation & impact, the practical application of site team working in a construction project environment.
4. To suggest the corrective measures or recommendations to build true team working in the construction industries.

2. LITERATURE REVIEW

T. Martin Ringer in "Leadership for collective thinking in the work place" deals with leadership and its contribution. The leader should be selected such that he possesses the skills to lead the team and give proper guidance to the team in case of worst condition. The team directly depends upon the leader and follows his guidance. Hence a good leadership contribute important role to successful completion of project. [1]

Khyomesh V. Patel ,Prof. Chetna M. Vyas in "Construction material management on construction sites" focus on material and equipment cost. According to him, construction materials and equipment may constitute more than 70% of the total cost for a typical construction project. Therefore the proper management of this single largest component can improve the productivity and cost efficiency of a project and help ensure its

timely completion. One of the major problems in delaying construction projects is poor materials and equipment management. [3]

P. Swapna and N. Samuyelu in "Social security regarding employee or labour welfare" focus on relationship between working management. According to him, The worker's discontentment manifested through different forms has been analyzed and evaluated to understand the union management relations. The evolution, growth and functioning of the trade unions have been studied to locate the drawbacks among them. Suggestions have been offered for strengthening and reforming the trade unions keeping in view the opinions of the workers. A critical analysis of the role and scope of the personnel department has also been attempted [4].

Carmen Zarzu, Cezar Scarlat and Pinar Falcioglu in "Team composition and team performance: achieving higher quality results in an international higher education environment" deals with A consistent theory on building successful teams was constructed by R. Meredith Belbin and his collaborators from the Industrial Training Research Unit (ITRU) from Cambridge, over years of solid multi industry and multi country research. Issues like ideal size of the team, why teams succeed or fail, team leadership, designing a winning team, key team roles were addressed, studied and eventually offered solutions. The theory is centered on the team roles and how they better match in order to avoid conflicts, and build sound management teams. In order to contribute to the empirical literature on Belbin's theory, the present study is focused on building teams in line with the team roles defined in the theory where the teams are composed of international students working on their academic projects with the aim of achieving higher quality results and work satisfaction. [5]

According to Frances A. Kennedy, teams generally go through four stages [6]:

2.1. Forming (orientation):

This stage is characterized by introductions and socializing activities. In some teams, members may be somewhat tentative and may not fully understand the purpose of the team. But in others, they may get right down to identifying what each member can contribute to meeting the objective and planning an agenda

2.2. Storming (dissatisfaction/conflict):

This stage is characterized by individual assertiveness, hidden agendas, conflict, and discomfort. Significant role negotiation is the undercurrent. This stage provides a foundation for effective interaction in the next stages. Groups may form, and a struggle for leadership may take place. Individual members may be dissatisfied with the team's performance at this stage and may reflect that feeling with dishonorable comments about the team.

2.3. Norming (resolution/cooperation):

The team begins to refocus on their task or objective and to develop a team spirit. Leadership may be shared among group members. Problems are addressed as mutual rather than individual. Real progress toward the team's objective is made.

2.4. Performing (productivity):

Members feel high morale within the team, loyalty to the team, and an identity that may be represented by a logo or name. Members may participate equally.

This paper summarize skills require, material and equipment, safety and forming the best team for the construction projects. It also investigate the formation of team and characteristic skills

3. PERFORMANCE OF MANAGEMENT TEAM

Performance measures are recognized as an important element of all total quality management programs. Managers and supervisors directing the efforts of an organization or a group have a responsibility to know how, when, and where to institute a wide range of changes. These changes cannot be sensibly implemented without knowledge of the appropriate information upon which they are based.

To address these issues, the steering committee members commissioned a work group to study the development, implementation and operation of performance measurement systems. This guidance document, the product of the work group, provides a comprehensive, step by step explanation of how to develop performance measurements at any level within an organization and how to evaluate their effectiveness.

Most performance measures can be grouped into one of the following six general categories. However, certain organizations may develop their own categories as appropriate depending on the organization's mission:

1. **Effectiveness:** A process characteristic indicating the degree to which the process output (work product) conforms to requirements.
2. **Efficiency:** A process characteristic indicating the degree to which the process produces the required output at minimum resource cost.
3. **Quality:** The degree to which a product or service meets customer requirements and expectations.
4. **Timeliness:** Measures whether a unit of work was done correctly and on time. Criteria must be established to define what constitutes timeliness for a given unit of work. The criterion is usually based on customer requirements.
5. **Productivity:** The value added by the process divided by the value of the labour and capital consumed.
6. **Safety:** Measures the overall health of the organisation and the working environment of its employees.

3.1 Benefits of Performance of management team

Listed below are important benefits:

- To identify whether teams are meeting owner requirements.
- To ensure decisions are based on fact, not on emotion.
- To show where improvements need to be made.
- To show if improvements actually happened.
- To reveal problems that bias, emotion, and longevity cover up. If we have been doing our job for a long time without measurements, we might assume incorrectly that things are going well.
- To identify whether suppliers are meeting the requirements.

4. DATA COLLECTION & ANALYSIS

The data is collected from different residential construction sites. A response table is to be prepared from two different construction sites & the data is based on response level of each team member. To simplify the data analysis, an analysis was performed, based upon the responses provided, according to

the respondent’s position within his organization. The respondents are divided into owner, project manager, engineer, contractor, labour etc. The serial numbers are given according to the position of each team member from his level i.e. higher to lower (1 to 5).

Brief information collected about owner, architectural consultant, structural engineer, project manager, senior engineer, junior engineer, subcontractor, skilled and unskilled labour and their quantity which is required for the project. The response views of owner, project manager, engineer, contractors and labours are given mainly on the following points:

- Team Leadership
- Team Goals & Objectives
- Management Support
- Roles & Responsibility
- Team Task Processes
- Team Relationship
- Team Communication

In a response table last column consists of number 1,2,3,4,5 indicates owner, Project Manager, Engineer, Subcontractor and labours respectively while below that, the numbers which are in front of characteristics i.e. 1,2,3,4,5 indicates high, medium, average, low, unsatisfactory response.

SR.NO.	CATEGORY/ CHARACTERISTICS	RESPONSE LEVEL				
		1	2	3	4	5
TEAM LEADERSHIP						
1	Team leader match with the team					
2	Team leader guide properly to team members					
3	The team leader has capability to solve the team problems					
4	The team leader has skills					

	of a good leader					
5	Each team member satisfy about the team					
6	Team leader cooperate with team members					
7	You satisfy about your team relation					
8	Each team member satisfy about team leader					
9	More and improved training required					
10	More emphasis on practical training					
SR.NO.	CATEGORY/ CHARACTERISTICS	RESPONSE LEVEL				
		1	2	3	4	5
TEAM GOALS & OBJECTIVES						
11	Awareness of team goals & objectives					
12	Performance of team as per goals & objectives					
13	Achievement of goals at the end of task					
14	Working of team members as per the goals or not					
15	Satisfaction about goals & objectives					
16	Implementation of goals time to time & according to site condition					
MANAGEMENT SUPPORT (Higher to Lower)						

17	Support of higher management/authority to team member						
18	Cooperation of management with team						
19	Management understanding each team members his role						
SR.NO.	CATEGORY/ CHARACTERISTICS	RESPONSE LEVEL					
		1	2	3	4	5	
20	Satisfaction of member about team management						
ROLES & RESPONSIBILITY							
21	Knowing the roles & their responsibility of team						
22	Working of member as per the role						
23	Responsibility of team during the accident at the site						
24	Punishment/ action against non performance of role by member						
TEAM TASK PROCESSES							
25	Planning of team task						
26	Progress of task by each team member						
27	Follow the team process by team member						
TEAM RELATIONSHIP							
28	Maintaining team relation						
29	Relationship between team						

	at different level						
SR.NO.	CATEGORY/ CHARACTERISTICS	RESPONSE LEVEL					
		1	2	3	4	5	
TEAM COMMUNICATION							
30	Communication between each team member (Horizontal Communication)						
31	Communication between lower to higher authority (Vertical Communication)						
Response Level							
High – 1, Medium – 2, Average – 3, Low – 4, Unsatisfactory – 5, No comment – 0							

Table-1: Response Level Table of Each Factor For Project I and II.

Project	Σ Avg. of All Response Level	Σ Avg. of Unsatisfactory Response Level	Percentage of Unsuccessful Performance	Percentage of Successful Performance
I	17.8	35	50.85	49.15
II	10.62	35	30.34	69.66

Table-2: Percentage of Success of Project Performance.

5. CONCLUSIONS

The study is mainly focused on the performance of team in construction industry. Performance management is very important in construction industry. Because a well perform management gives better results than other. Performance of team can be depends upon the characteristics such as leadership, goals & objectives, management supports, roles & responsibilities, task process, relationship and communication. So these characteristics are assessed and improvements suggested. It conclude that,

- As we know that the performance of project depends upon the working of site management team. So it is the

responsibility of site management team to plan the work and use appropriate method to increase the performance of project. Therefore, management team goals should be set at the beginning of the initial stage based upon the team and from his supervisor.

- From the recent study it is observed that the performance of management team is assessed on the factors such as leadership, goals & objectives, management supports, roles & responsibilities, task process, relationship and communication etc. So if any one of these factor gets low then it effect on the performance of team directly.
- As we know that better understanding between team members is increased by the development of personal relationship and learning about each team member's strength. So each team member trust to another and understand the risk in their roles for the project's success.
- To improve the project output in construction industry guiding project managers at all levels with clear responsibility for coaching, monitoring and improving performance of their respective team. Hence for continuous improvement to manager's skills on performance management, including setting and measurement, coaching, appraising and motivating staff.
- The working of each team member from higher to lower level has directly effects on construction industry. Because any pending/uncompleted task can stop other tasks which depends on it. So every team member understands his impact on construction project environment.
- Senior management's leadership and support to the team, promotes team members about their goals & objectives. Therefore the whole team develops good working condition and ultimately the environment
- During construction work, team members arises certain problems means about site or personal. So management should discuss and learn the problem and a proper solution is found out.
- As the good communication interlock the team member and maintained good relation. It acts as a mediator

between the members to discuss and solve their problem from different levels.

- The project manager should have power to handle the site.
- From data analysis, it has been seen that, the percentage of performance of success for Project-I and Project-II are 49.15 & 69.66. So, it concludes that performance increases with increasing & maintaining the seven characteristics of a team.
- So finally from this study it conclude that as the performance of management team increases the project should complete within estimated time and benefit cost ratio also increases. The performance also improves the quality and makes team unite.

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