PERFORMANCE MANAGEMENT IN ROAD CONSTRUCTION PROJECT

Dhaval Virendra Parikh¹, Prof. Sumit Phugat²

¹Post Graduate Student, Department of Civil Engineering, Parul Institute of Technology, Parul University, Vadodara, Gujarat, India
²Assistant Professor, Department of Civil Engineering, Parul Institute of Technology, Parul University, Vadodara, Gujarat, India

ABSTRACT - Over the last four decades, we have seen the outlook towards managing performance come full circle. From early 21st century, we have been observing an interesting trend among global organizations, especially in the technology and consulting space, to make their performance management approach more development-focused and less dependent on relative ranking and normalization. While performance management is an area of immense personal interest, it has recently gained prominence as a topic of discussion, with many Indian companies initiating big as well as small changes to the way they approach the measurement and management of performance. This has also encouraged their Indian counterparts to critically evaluate their current performance processes and make modifications. So in today's world projects should be organized to accomplish complex tasks that cannot be handled by lone individuals but by multidisciplinary teams in the construction industry. The success of a project depends upon how well the personnel can work effectively to accomplish the objectives within scope, cost and quality constraints. Performance management is about directing and supporting employees to work as effectively and efficiently as possible in line with the needs of the organization. So our main focus will be to identify some of the inflection points that trigger the need to evaluate and modify performance management approaches and understand the mind-set of change-makers and discover the issues that they prioritize for resolution.

KEYWORDS - Road Construction Industry, Performance Management, Performance Appraisal, Performance Measurement, 360-Degree Feedback

1. INTRODUCTION

Projects are organized to accomplish complex tasks that cannot be handled by an individual but by a multidisciplinary team in the construction industry. Project success depends upon how well the personnel can work effectively to accomplish objectives within scope, cost and quality constraints. Hence the need for performance management as a system for managing and integrating organizational and employee performance. In past, many researches have been done to frame an effective performance management system for construction industry based on the flaws in the existing systems adopted globally. Performance management is a continuous process of identifying, measuring and developing the performance in organizations by linking each individuals performance and objectives to the organizations overall goals and mission. Performance management is the process of creating a work environment in which people are able to perform to the best of their strength and abilities. It is the main way by which managers communicate what is required from employees and give feedback on how well they are achieving job goals. The performance of a successful project team is measured by three factors:

- Performance on project schedule (finish on time)
- Technical success according to agreed project objectives
- Performance on budget (finished within financial constraints)

A manager is needed to adopt performance management practices that will facilitate continuous review and ongoing development of your department team in order to deliver departmental objectives. The underlying assumption is that by managing the performance of an individual and a team, departmental and organizational performance will follow and by raising the individual and team levels of performance, organizational performance will also improve. Equally when the performance of an individual is not managed, it leads to frustration and discontent amongst team members.

2. OBJECTIVE

To analyse different methods and help to improve the performance management skills of an individual and also teams who take responsibility for the improvement of their own and also their organizations. It is done through a questionnaire survey form using 360-degree feedback method.
3. NEED FOR STUDY

To measure the performance of the engineers to check whether their work is in line with the strategies of the organization. To measure the performance of the employees based on the non-financial performance measures. This process will help the employees to be aware of the work nature and also he can track the performance by self. The project manager can also track his subordinates performance using these measures. The measures can be used to upgrade the knowledge of engineers towards the project scenario and the same can be implemented for a successful completion of a project. It also helps the Project managers to guide the engineers under him and can bring the best out of his employees.

4. SCOPE OF THE WORK

The scopes of the present study of performance appraisal are as follows:-

1) This study provides appraisal feedback to employees and also serves as vehicles for personal and career development and also allow the management to take effective decision against drawbacks for the wellbeing of the employee's development as well as company's development.

2) To improve employee's work performance by helping them realize and also use their full potential in carrying out their company's mission.

3) The main aim of the study is to find out the effectiveness of performance appraisal & development program conducted at construction companies.

This study helps to know the level of importance of appraisal system in a company’s development.

5. METHODOLOGY

The methodology of this research study is explained and described based on the objectives of the project. This research study is commenced by reviewing the literatures that are admissible. From the literature study the factors that affect performance in construction projects are identified. Based on the factors the questionnaire survey form in prepared and the survey is conducted among various participants in different road construction companies.

Method Used To Prepare A Questionnaire Survey Form: 360-Degree Feedback Method

A 360-degree feedback (also known as multi-rater feedback, multi source feedback, or multi source assessment) is a process through which feedback from an employee’s subordinates, colleagues, and supervisor[s], as well as a self-evaluation by the employee themselves is gathered. Such feedback can also include, when relevant, feedback from external sources who interact with the employee, such as customers and suppliers or other interested stakeholders. 360-degree feedback is so named because it solicits feedback regarding an employee's behavior from a variety of points of view (subordinate, lateral, and supervisory). It therefore may be contrasted with "downward feedback" (traditional feedback on work behavior and performance delivered to subordinates by supervisory or management employees only; see traditional performance appraisal), or "upward feedback" delivered to supervisory or management employees by subordinates only. Organizations have most commonly utilized 360-degree feedback for developmental purposes, providing it to employees to assist them in developing work skills and behaviors. However, organizations are increasingly using 360-degree feedback in performance evaluations and employment decisions (e.g., pay; promotions). When 360-degree feedback is used for performance evaluation purposes, it is sometimes called a "360-degree review". There is a great deal of debate as to whether 360-degree feedback should be used exclusively for development purposes or for evaluation purposes as well. This is due primarily to feedback providers' subjectivity and motivations, inter-rater variations, and whether feedback providers have the ability to fairly evaluate attainment of work and organizational objectives. While these issues exist when 360-degree feedback is used for development, they are more prominent when employers use them for performance evaluation purposes, as they can unfairly influence employment decisions, and even lead to legal liability.

5.1 History:

One of the earliest recorded uses of surveys to gather information about employees occurred in the 1950s at the Esso Research and Engineering Company. From there, the idea of 360 degree feedback gained momentum, and by the 1990s most human resources and organizational development professionals understood the concept. The problem was that collecting and collating the feedback demanded a paper-based effort including either complex manual calculations or lengthy delays. The first led to...
despair on the part of practitioners; the second to a gradual erosion of commitment by recipients. However, due to the rise of the Internet and the ability to conduct evaluations online with surveys, multi-rater feedback use steadily increased in popularity. Outsourcing of human resources functions also has created a strong market for 360-degree feedback products from consultants. This has led to a proliferation of 360-degree feedback tools on the market. Today, studies suggest that over one-third of U.S. companies use some type of multi-source feedback. Others claim that this estimate is closer to 90% of all Fortune 500 firms. In recent years, this has become encouraged as Internet-based services have become standard in corporate development, with a growing menu of useful features (e.g., multi languages, comparative reporting, and aggregate reporting). However, issues abound regarding such systems validity and reliability, particularly when used in performance appraisals.

5.2 Accuracy:

A study on the patterns of rater accuracy shows that the length of time that a rater has known the individual being evaluated has the most significant effect on the accuracy of a 360-degree review. The study shows that subjects in the group “known for one to three years” are the most accurate, followed by those “known for less than one year,” followed by those “known for three to five years” and the least accurate being those “known for more than five years.” The study concludes that the most accurate ratings come from those who have known the individual being reviewed long enough to get past the first impression, but not so long that they begin to generalize favorably. It has been suggested that multi-rater assessments often generate conflicting opinions and that there may be no way to determine whose feedback is accurate. Studies have also indicated that self-ratings are generally significantly higher than the ratings given from others. The motivations and biases of feedback providers must be taken into account.

5.3 Description:

It is one of the more common business improvement techniques used in modern organizations, especially for building stronger teams. An employee is assessed based on technical elements as well as their behavior & character throughout the time period.

5.4 Benefits:

Does away with the danger of one bad appraisal affecting an employee’s promotion opportunities. Highly effective for organizations where employees are involved in several projects, responsibilities or roles.

Fig. 1 Process to be followed
6. IDENTIFIED FACTORS

From various reviews several factors that affects the quality of the project were identified which becomes the first step to frame the questionnaire survey form. The identified factors are:

1) Performance Factors
   - Management Skills
   - Performance Improvement
   - Punctuality at work
   - Accuracy (Quality) of work

2) Grading System
   - Qualification of an individual
   - Target achieved by an individual
   - Experience in the current firm

3) Personal Effectiveness
   - Interpersonal Relationship
   - Creative Ideas
   - Stress Tolerance
   - Motivation
   - Work Habits

4) Behavioral Factors
   - Problem Solving
   - Decision Making
   - Responsibility

5) Social Factors
   - Communication
   - Adaptation of situation
   - Understanding with other Employee or Employer

7. QUESTIONNAIRE SURVEY FORM

Validation of questionnaire survey form: The validation of questionnaire is done by different experts from different companies.

8. SAMPLE SIZE DETERMINATION

Sample Size Determination: Selection can be definite as the process of selecting descriptive units of a population for the education in the study analysis. The independent of the selection is to provide an applied means of assisting the data gathering and processing the modules of investigation to be approved out with ensuring that the sample provides a good demonstration of the people. A sample is a small quantity of the population designated for scrutiny and analysis. The sample was selected haphazardly from the population.

- \( N \) (population) = 55
- Confidence level = 95%
- Standard deviation = 0.5
- \( Z \) score for 95% confidence level = 1.96
- Necessary sample size (SS):
  - \( [(Z \text{ score})^2 \times (\text{standard deviation})^2 \times (1 - \text{standard deviation})] \div (\text{margin error})^2 = 384 \)
- Adjusted sample size = SS1 + \([SS - \text{POPULATION}] = 48 \)
9. COLLECTION OF DATA, RESULT AND DISCUSSION

Primary data: It is the data which was collected for own research purpose. The primary data was collected through questionnaire survey. The questions were framed to gain maximum knowledge from higher officials, which were analyzed in order to arrive at suitable conclusion. The primary data was collected through:

Questionnaires: 48 questionnaires were distributed covering heads of various departments such as HR, Technical and also the owners of the company. It was also distributed to various Executive Engineers and Project Managers of the companies.

Secondary data: Secondary data were collected from past records and manual of the company, books, internet etc. It is the data already collected, which is made available for reference purposes. In my research the secondary sources used are, various files and records maintained by organization, HR manual, Journals and Booklets etc.

9.1 RESULT AND DISCUSSION

(A) Reliability and Validity of the Management System

It is noted that performance management system should bring a positive experience and also contribute to the overall welfare of the organization. If it is done properly, it will be a very effective tool to improve performance and productivity and for developing employees. However, the respondents moderately agreed that the performance management system is relevant and reliable. Results of the study imply that the performance management system of the company needs further review and revision so as to serve the main purpose of the evaluation.

(B) Quality of the Performance Management

No evaluation system will achieve its objectives unless and until there are some consequences to the evaluation. It will be of no value, just a waste of effort, time and money. Performance Management should serve as a standard to plan promotions, empowerment, salary revisions and training and development. The success of every management system depends on the key results of such tool. Good result is not possible without giving importance to employee’s value. Evaluation without appropriate action and results is not useful and it will only create more problems in the firm.

(C) Effectiveness of the Management System

The effectiveness of any work depends on how it is correctly done and also implemented to serve the highest value of the firm as a whole. Perhaps the most important element of an effective performance management system is employee development. While it is a fact that the management system identifies the weakness of an employee, the employee development is a part of the overall performance management system is used to identify the best way to bring improvement to success of an employee and also its firm.

10. CONCLUSION

From the recent study, we have rectified the factors that are affecting performance and productivity. Project manager should focus on those factors to improve an employee’s performance so that it can benefit the firm also. The result shows that the most significant factors that are affecting performance management are Performance Factors, Grading System, Personal Effectiveness, Behavioral Factors and Social Factors. Employees should focus on these factors so that it can enhance the performance of the individuals and also the firm.

11. ACKNOWLEDGEMENT

I would like to thank my project guide Prof. Sumit Phugat for providing guidance & constant support throughout the completion of my project work. In addition to it I would also like to thank Prof. Ankit .S. Patel and Prof. Shakil .S. Malek for the valuable remarks and guidance. I would also like to thank Parul University for their constant support to carry out this research work.

12. REFERENCES


17. Sai On Cheung, Henry C.H. Suen, Kevin K.W. Cheung, PPMS: A Web Based Construction Project Performance Monitoring System, Construction Dispute Resolution Research Unit, Department of Building and Construction, City University of Hong Kong, 83 Tat Chee Road, Kowloon Tong, Hong Kong.


