

A Review of Performance Management in Construction Industry

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Abstract - Improving construction efficiency by means of Time and Cost effectiveness would surely contribute to cost saving. Projects are organized to accomplish complex tasks that cannot be handled by individuals but by team experts in the construction industry. Project success in Construction Industry depends on how well the team members can work effectively to accomplish objectives within scope, Time, cost, and quality constraints. Therefore, this research aims to identify the importance of performance management and its influence on the Infrastructure Projects for managing and integrating organizational and employee performance. In past the contributions of the, researches" shows things were done for an effective performance management system in the construction industry based on the faults in the existing systems adopted globally.

Most of the reviews are based on the question and surveys shows only the Performance in different aspects as present practices takes in to account the performance from the Project Managers to the Site Engineer or even in case of Productivity to know the unit quantity of work and the unit amount of cost required to complete by the unit quantity of work force and some studies are based on the appraisal which does not contribute the reality of the Performance Management.

The performance of a successful project team is measured by these factors, such as technical success according to agreed project objectives; Performance on project schedule; Performance on budget. The main assumption is that by managing the performance of the individual and team, departmental and organizational performance will follow and by improving the individual and team performance levels, organizational performance will also improve.

In India, as per Ministry of Statistics and Programme Implementation, out of a total of 1420 public infrastructure projects which are worth 150 crores and above, more than 25% of the public sector projects have cost overruns and time escalation to the tune of 3.58 lakh crores & with an average time delay of 45.95 months due to bad Performance of the project. Delays and cost

overruns have substantial impact from economic as well as political point of view. Due to lack of Performance Management in project implementation, the people and the economy must wait for the provisions of public goods and services longer than is necessary. Thus, Performance Management limit the growth potential of the economy, and reduces competitiveness of the economy. The purpose of the proposed research is to find the Importance of Performance Management and minimize its effect on infrastructure project.

INTRODUCTION

Construction organizations both in developed and developing countries are operating rapidly. A rapidly changing and competitive business environment which impacts on their strategies and Performance management and measurement (PMM) systems/frameworks. Changing demands and the technologies advances are some of the most important factors in the past has shown that impacted on effectiveness of the PMM within business organizations (Yadav-Sushil and Sagar, 2015). These environmental factors have caused Construction organizations to constantly modify or revise their strategies and PMM Systems to reflect the changing factors (Munir and Baird, 2016).

Pekkola et al., 2016). Over the decades, the evolution of the business environment has brought a Project Management revolution (Neely, 1999), which has led to a change.

The revolution of the Project Management has moved the Construction Industries to an incremental pace (Deng and Smyth, 2014).

In view of this, contemporary performance measurement and management CPMM is being adapted and implemented by several construction organizations to drive performance improvement (Horta et al., 2012). Over the past few years, many

studies were conducted on PMM in construction (Yang et al., 2010) and most of them have focused on the project-level performance (Ali et al., 2013; Jin et al., 2013).

Earlier studies conducted on PMM in construction at organizational level has increased (Yu et al., 2007; Jin et al., 2013). In past few studies have been attempted to develop conceptual studies for the performance evaluation of industry, and there have been few follow-up studies (Yu et al., 2007).

EARLIER STUDIES

Ms.B.Kaviya, Ms.C.Hema published the “Performance Management in Construction” within the International Journal of Innovative Research in Science, Engineering and Technology Vol. 4, Issue 4, April 2015.

The main objective of the study was to frame the aspects of a project required for the efficient performance in construction industry, which are vital that Project managers and site engineers should be aware of. Which was done via questionnaire survey. The data collected will be used to interpret results and suitable suggestions to improve the performance management.

Explains the need in the present scenario of the construction industry it is vital to measure the performance of the engineers to check whether their work as per the strategies of the industry. It is not being followed in many companies and expects a positive financial turn over regardless of the performance of their employees.

The study involves in identifying various aspects of a project for the measurement of performance of the project managers and site engineers.

The study is grounded on performance management and identifying the methods in practice and the different features of a construction project with respect to those methods which are framed out. Then a questionnaire survey is prepared. which can be used to collect data from project managers and site engineers of various companies. A survey is done to know the awareness among the staff and weighted scale type questionnaire is prepared data obtained is analyzed and results are obtained. Based on the result suitable suggestions are made to enhance the performance of the engineers.

The Authors explains the evaluation, measurement of the Performance Management as below categories.

PERFORMANCE MANAGEMENT

- a. An overview of performance management:
- b. Performance Evaluation and Development:
Encourage and improve communication between employee and supervisor.
- c. Timing of Performance Evaluations:
The performance evaluations will be conducted:
- d. Measurement of Performance Management:
The performance management cycle:
Defining objectives and evaluating achievements
Performance Measurement by using financial measures can only identify the past performance but not what is done to achieve that performance.

PERFORMANCE MEASUREMENT METHODS

- a. Balanced scorecard:
- b. Performance metrics:
- c. Performance Process Framework:
- d. The last planner system:
Aki Pekuri, HarriHaapasalo, MailaHerrala has published the “Productivity and Performance Management” in International Journal of Performance Measurement, 2011, Vol. 1, 39-58.

Which deals with Productivity and Performance Management and the Managerial Practices in the Construction Industry The purpose of the study was to clarify the meanings of different terms related to productivity. It aims to form an understanding of prevailing shortcomings. A Macro level analysis study performed, and the results shows that the rate of productivity development in construction industry has been moderate at best, leaving behind the best of its international counterparts.

Authors describe the Productivity and Profitability with different characteristics measurements and the Productivity analysis in Construction Industry.

Productivity:

Defines the Productivity a commonly used but a poorly defined term that appears in both academic and practical discussions.

Characteristics of productivity measurement at different levels of analysis, productivity has predominantly focused on labor productivity; and

more often, productivity is expressed and measured in monetary units per input (Stainer, 1997).

Productivity analysis of the construction industry EU KLEMS Growth and Productivity Accounts are financed by the European Commission to analyze productivity in the European Union at the industry level. The database is mostly based on data gathered from national statistical institutes and is processed according to agreed procedures.

The emphasis of productivity management in construction industry should be on identifying and understanding the impact of variation and the relationships between various resource inputs to outputs here where performance measurement comes into question.

Performance Management:

He explains the Performance Management as a broader concept that covers both the economic and operational aspects of an industry. Performance refers to value which includes profitability and productivity as non-cost factors, such as quality, speed, delivery, and flexibility.

Performance measurement in the construction industry Internal benchmarking is the examination of an individual organization's current processes and practices for identifying improvement targets that relate to how the organization does business and how its customers evaluate their services. Performance of the projects is based on the project benchmarking in which the organization is involved; its aims are meeting customer requirements, measuring productivity rates, and validating and maintaining its estimating databases.

External benchmarking deals with the selection and implementation of managerial and technological advances developed by other industries, to generate significant improvement in construction.

The dispute regarding performance indicators.

Key performance indicators: an evaluation.

Finally, the author explains to make an effective use of the results of performance measurement, an organization must be able to make the transition from measurement to management as the latter which provides the opportunity to enhance and improve activities.

RESEARCH GAP

As many authors have used analysis packages and contributed their work during their research work. Literature survey showed that most of the work is concentrated on study of the need of Performance Management and its measurement at the corporate level for an example Project Managers and its subordinates like Site Engineer or the other studies shows only the part of productivity and Performance Management defining their relationship, but no work shows the main contribution of the bottom level that is the work force.

As the work force is the main and large contribution towards project success it is not the Project Manager or site staff but the field workers who contributes their performance towards the profit and loss of the project but also towards the organization.

Since the problems are work force performance at the construction site which plays a vital role for the overall project and company's Performance Management, the research study requirement to focus on specific area of Infrastructure Project. Judging from the state of research, there is a need to identify Performance management in infrastructure project through a Site assessment collecting direct and indirect evidence and recommending proposal for Performance Improvement.

OBJECTIVES OF THE PROPOSED RESEARCH

The proposed objectives of the study can be summarized as follows:

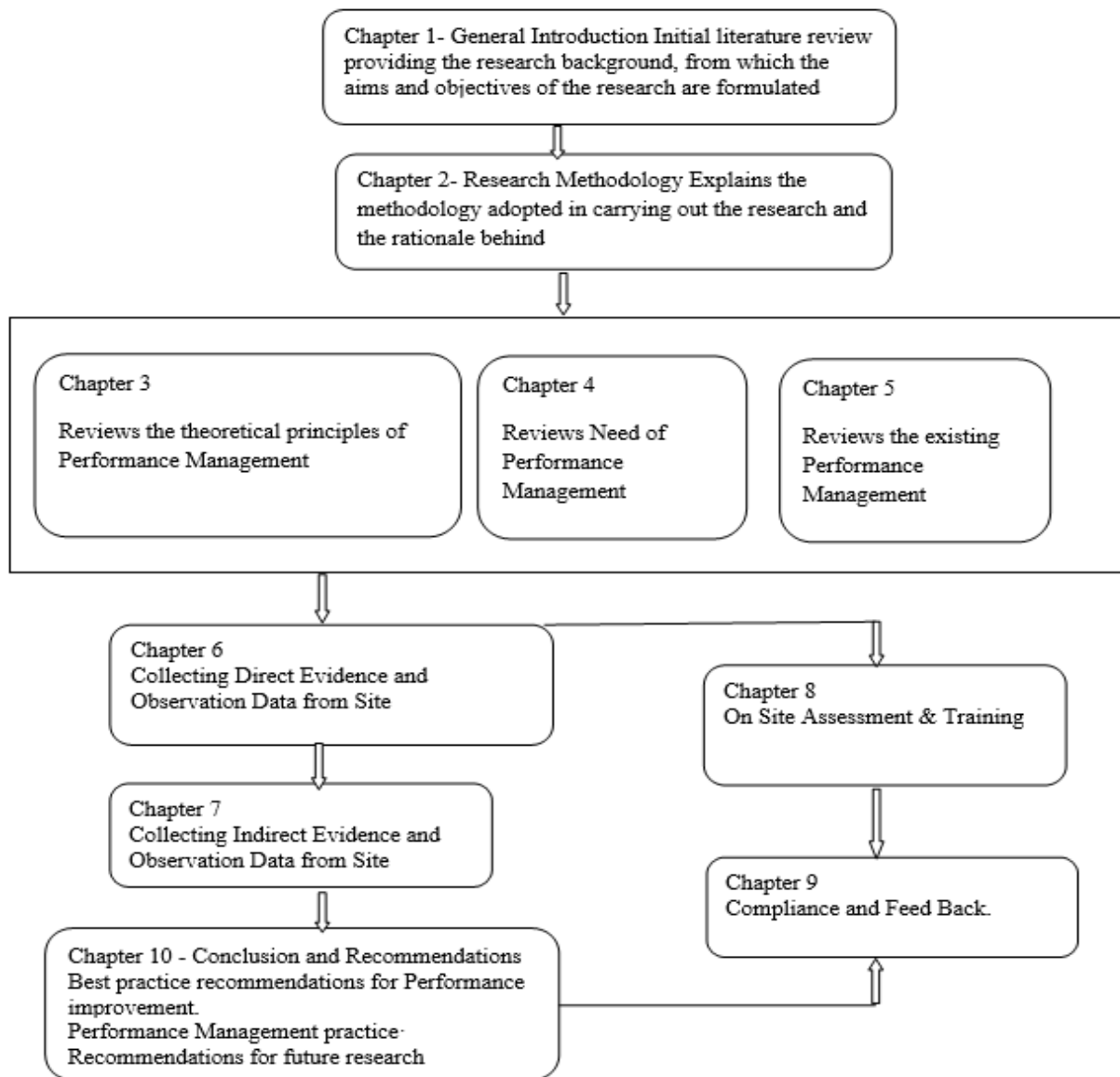
- To identify and evaluate the importance and the influence Performance Management in infrastructure project execution.
- To assess and collect the Direct and Indirect evidence and observation of Performance of the work workforce and there behavioral carrying out at infrastructure project.
- To investigate how the Performance Management can be improved. Factors effecting Performance on project delivery in infrastructure projects can be studied further by incorporating qualitative factors which can be solved by Risk Identification techniques such as brain storming, Interviews, etc.

PROPOSED RESEARCH FRAMEWORK

The proposed research work shall be divided into ten chapters; introduction and research methodology shall be presented in chapters 1 & 2 respectively. Literature review shall form chapters 3,4 & 5. The analysis of Performance Management and Measurement shall be done and discussed in chapters 6, 7 & 10. On Site

Assessment Training (OSAT) and Compliance and Feed Back results shall be dealt in chapters 8 & 9. The following flow chart below depicts the proposed research framework.

Flowchart showing research framework methodology



CONCLUSIONS

The Performance Management and measurement in Construction as a vast study conducted on the performance management and the various

performance methods being used in the construction industry. Every method has its own Pros and Cons. For an effective performance the organizations should give more importance to the non-financial measures than the financial.

Performance measurement should be done from multiple perspectives as high productivity is the outcome of many well-executed aspects.

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