

A Review on Stakeholder Management in Construction Industry for Road Project

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Abstract — In construction industry, the management of the stakeholders is become the major emerging concerns because project stakeholders are the main pillar of the construction project. Without stakeholders, the project never come into the existence. Different stakeholder have different level of interests and investment in the project. To manage the different stakeholders of the project and to maintain an acceptable balance between their interests is crucially important for the project success. Stakeholders play an important role in the project success or failure, therefore its management is important for the project success. Stakeholders have a great influence in the project success. Henceforth, stakeholder management is become one of the most important project management tool. Therefore, it becomes important to identify the various factors that affects the stakeholder management. Thus a review study has been summarized in this paper to give a brief overview on stakeholder management and factors affecting stakeholder management in road construction projects in India.

Keywords — Construction industry, Stakeholder, Stakeholder management

I. INTRODUCTION

Construction project utilizes a huge amount of investments, which is provided by the different investors or stakeholders. Stakeholder is “An individual, group or organization who may affect, be affected by or perceive itself to be affected by a decision or outcome of a project”. An increasing number of studies have identified the importance of stakeholder management in construction projects (Newcombe, 2003; Olander and Landin, 2005) [3]. It seems that most of the projects are not completed due to improper management of the project stakeholders.

Stakeholder management is “The process of identification, analysis, communication, decision making and all other kind of activities in terms of managing stakeholders” [5]. Effective stakeholder management in construction project has an important contribution to the success of any construction project [7]. The main objective of stakeholder management is to ensure a successful delivery of the project by considering stakeholders’ needs and expectations, interests and influence in the project.

Classification of stakeholder is different from writer to writer. According to H. Moura and J. Teixeira, Stakeholders can be internal and external.

Internal stakeholder- Those people who direct participants in the project.

External stakeholder- Those people who affected by the project.

II. CONSTRUCTION PROJECT STAKEHOLDERS

Construction project have common characteristics in that they will always have project achiever, client and beneficiary [9]. Knowing the stakeholders and their roles relative to the project is an important step for management of stakeholders. This can be achieved through an adequate definition of stakeholders. In order to identify the stakeholders in road construction, stakeholders are collected from literature review.

To achieve the desired objectives of any project and to complete the project successfully, various stakeholders are involved in road construction project are as follows.

1. Client
2. Consultant
3. Financier
4. Government authorities

5. Local authorities
6. Main contractor
7. Sub-contractor
8. Builder/ Developer
9. Laborers

Table-1 Stakeholders and their roles

Stakeholder	Roles
Client	The client can be public or private [5]. Clients allocates funds to the project. It provides financial support maximize return with minimized risk.
Consultant	It provides consultancy advice for the project on designing, evaluating the cost, produces drawings and specifications, and ensures that a project is implemented within cost and time.
Financier	It provides an adequate funds for the completion of project and ensures that the funds are utilized for the project purpose.
Government authorities	It ensures that the project follows by laws and regulations.
Local authorities	Its main function is to make the project work environment friendly by discussing with community about the project and transfer community questions for client or consultant [9].
Main contractor	It brings the project design to the reality and carries out and complete the work designed by consultants to meet time, cost and quality.
Sub-contractor	It carries out and complete the work assigned by main contractor.
Builder/ Developer	A builder should be concerned with monitoring and evaluating the construction project. He should be able to apply the different monitoring techniques to achieve the objectives.
Laborers	It carries out and complete the work assigned by the contractor.

III. NEED TO MANAGE STAKEHOLDERS IN CONSTRUCTION PROJECTS

The previous section discusses construction project stakeholders and their roles. Construction projects have many stakeholders with different occupational, professional backgrounds, different levels and types of interest in the project. Stakeholders' impact or influence affect the project outcome in different way and it can be negative or positive [2]. Therefore, it is an important task to manage stakeholders to their expectations and needs for successful completion of project. The main objective of stakeholder management is to attain the desired and successful completion of project by considering the stakeholder

interests, needs, influence and avoid unnecessary conflicts among project stakeholders.

The PMI (2004) defines project stakeholder management as "The systematic identification, analysis and planning of actions to communicate with and influence stakeholders". Identification and analysis of stakeholders' needs and influence is an important step in the planning of stakeholder management process [1]. But stakeholders' influence and interest is not constant from planning to completion stage of the project, it can vary from one stage to another stage of the life cycle of project [4]. Hence there is need to conduct and update stakeholders analysis during the entire life cycle of the project (Cleland, 2002; Olander and Landin, 2005).

IV. MAPPING OF STAKEHOLDER

For any construction project, it is essential to understand that who the project stakeholders are. Stakeholder mapping is one of the effective way for a project manager. By mapping project manager can better learn about the various stakeholders and their influence in the project.

Stakeholder mapping is a process of finding out the key stakeholders relating to a project, as key stakeholders have great influence on project success or failure. Once the project stakeholders are identified, project manager must map or categorize them according to different levels of engagement and their level of interest.

For this mapping Mendelow's matrix is used. Mendelow (1991) suggests that stakeholders are grouped based on their level of power and level of interest.

By power, it means stakeholders have power in setting and modifying project requirements. On the other hand, interest means that stakeholders are affected by the project outcome but they do not have any power to influence project requirements. Mendelow's matrix is allow us to identify which stakeholders are incredibly important.

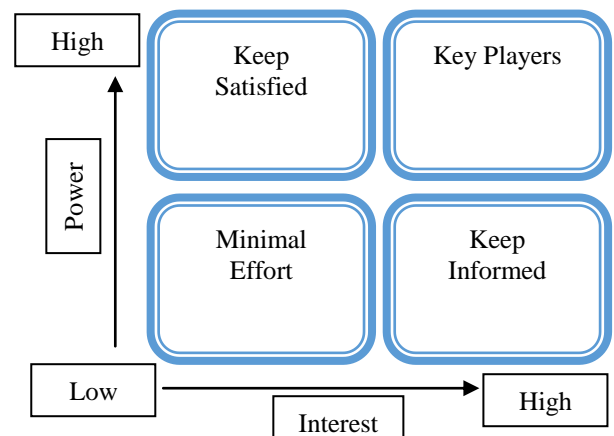


Figure-1 Power/ Interest Matrix

V. NEED AND OBJECTIVE OF REVIEW

In construction industry different parties involved, both

directly and indirectly on the project whose management is important in achieving the project success. If there are different conflicts and problems occur between the parties, the project cannot complete within the time. Therefore, stakeholder management is an important strategy for achieving the project success. Poor stakeholder management can lead many serious problems in construction project, such as delay, cost overrun, or even project failure [6].

The objectives of review are as follows.

- To integrate the knowledge regarding the stakeholder management in construction industry.
- To empirically investigate the current practice of stakeholder management in construction industry.
- To identify the factors that significantly affects the stakeholder management.

VI. IDENTIFICATION OF FACTORS

Many researchers have identify the various factors that affects the stakeholder management process to enhance the performance of the management process. The most important factors that affect the stakeholder management are viewed as those practice that should be used in order to ensure the effective stakeholder management in construction project.

According to the previous literatures various factors are considered that influence the construction project. The literature review was conducted through books, the internet and international project management journals. Further, these factors have been characterized into six group depending on their nature as per follows.



Figure-2 Categories of Group

Each group has its own characteristics which play a significant role to manage stakeholders. Each group has been categories into its sub factor. Total 27 factors have been identified after categorization which are taken into

account. A list of classified factors according to their group has been given as follows.

Table-2 List of Factors

Sr. No.	Factors
Management Support Group	
1	Flexible project organization
2	Project management competences
3	Assessing proper sources to the project
4	Managing stakeholder with corporate social responsibility
Information Input Group	
5	Setting common goals and formulating clear statement of project mission
6	Exploring stakeholders need and expectations
7	Identifying stakeholders properly
Stakeholder Assessment Group	
8	Allocating best work for stakeholders
9	Stakeholders accuracy
10	Determine the stakeholders' knowledge
11	Evaluate stakeholders' power
12	Analyzing conflicts and coalitions among stakeholders
13	Understand stakeholders' urgency
Decision-Making Group	
14	Ensuring effective communication
15	Evaluation of alternative solutions
16	Formulating appropriate strategies to manage stakeholders
17	Compromising conflicts
18	Priority of work
19	Influence of politics for successful completion of project
Action and Evaluation Group	
20	Implementing the strategy
21	Evaluating stakeholders' satisfaction
22	Predicting stakeholders' reaction for implementing strategies
23	Reduce uncertainty

Continuous Support Group	
24	Higher authority support
25	Frequently communication with engaged stakeholders
26	Keeping and promoting good relationships with stakeholders
27	Maintain alignment among stakeholders

Overview of the above listed factors is describes as below:

- 1. Flexible project organization:** It will enable easy adjustment of responsibilities in responding to any changes encountered as a result of change in stakeholders' nature within the project. A project organization is needed to cope with the complexity and uncertainties of construction [10]. Therefore flexible project organization is important to deal with unreliability between different stakeholders.
- 2. Project management competences:** To achieve the project goal, project manager plays an important role which manage the project team. Project manager should have sufficient empowerment and able to perform a task given to him and he should highly skilled negotiator to give a solution of problem.
- 3. Assessing proper sources to the project:** If proper sources are not assigned, the project can be fail or delay and disputes may be arising between stakeholders and organization. Therefore, organization has sufficient sources for complete the project.
- 4. Managing stakeholder with corporate social responsibility:** An organization actively monitors society, the environment, global trends, ethical principles, and legal standards for compliance. Corporate social responsibility supports the organization's mission and extend its responsibility other stakeholders and community. The CSR process promotes the organizational actions that positively affect society as: environmental, communities and people.
- 5. Setting common goals and formulating clear statement of project mission:** The identification of clear project mission at various stages of project life cycle is considered to be essential for effective stakeholder management [8]. To complete the project mission, an organization has a clear mission statement which tells the project team members why project is important and can inspire them to work towards the desirable outcome.
- 6. Exploring stakeholders' needs and expectations:** An organization and project manager have to be aware about the stakeholders' need and expectations and list

the detailed issues among stakeholders, so that an adequate and authentic solution of problems can be obtain.

- 7. Identifying stakeholders properly:** Project manager needs to identify and interact with key stakeholders to manage them and determine how they will react to project decisions.
- 8. Allocating best work for stakeholders:** Due to various and divergent stakeholders' interests in construction projects it is important to assess the stakeholders area of interest. Depending on their interest the work is allocate them for accuracy of project work.
- 9. Stakeholders' accuracy:** It is important to update stakeholder analysis during the project life cycle, with the purpose of gaining knowledge about the influence of various stakeholders at different stage of the work. Based on that accuracy of stakeholders influence is measured.
- 10. Determine the stakeholders' knowledge:** If the stakeholder has more knowledge about the project, the more he is influence to project.
- 11. Evaluate stakeholders' power:** Stakeholder power is defined as a person or an organization that may have to permanently change or stop the project work. So, it is important to evaluate stakeholders' power. Project manager should have the ability to understand the invisible power among the stakeholders [10].
- 12. Analyzing conflicts and coalitions among stakeholders:** There are many internal and external stakeholders involve in a project, so the conflicts occur between them. Conflicts occurs whenever disagreement exist in a social situation. Therefore, it is important to analyze conflicts and resolve them.
- 13. Understand stakeholders' urgency:** Urgency is defined as the degree to which stakeholder claims call for immediate attention [10].
- 14. Ensuring effective communication:** Construction project involves various types of stakeholders and they all are dependents to each other. Therefore, it is important to ensure effective communication between them for a smooth work flow and it decrease the chance of dispute.
- 15. Evaluation of alternative solutions:** Project manager have to know about the conflicts occurs between stakeholder and give the alternative solution for compromise the conflicts by considering the transparent solution.
- 16. Formulating appropriate strategies to manage stakeholders:** The stakeholder management strategy is

the attitude how the project management team treats different stakeholders.

17. **Compromising conflicts:** Since there are various stakeholders involves in the project, conflicts occurs between stakeholders. So, it is essential for project manager to find the decision compromises regarding to the conflicts foe successful delivery of project.
18. **Priority of work:** Based on the priority of work, the project manager choose the stakeholder and give them responsibility to complete that task or work.
19. **Influence of politics for successful completion of the project:** Politics is one of the major factors for the Indian construction industry. Regulatory change of the person and member of the government body is influencing the project completion.
20. **Implementing the strategy:** Developing policy implementation strategy development grid can help planners and decision makers gain a clearer picture of what will be required for accomplishment and help them develop action plans that will tap stakeholder interests and resources. This activity is accessible. The formulated strategies should be implemented accordingly. The outcome of this activity is to keep the project moving forward [10].
21. **Evaluating stakeholders' satisfaction:** There are different stakeholders in the project whose expectations is different and must be included in the project. If stakeholders are not satisfied with the outcomes of the project, the project team will required to adjust cost, time and quality.
22. **Predicting stakeholders' reactions for implementing strategies:** When project manager make some strategies to deal with stakeholders, he must consider the stakeholder reaction that how they will reacted on his decision. This would enable stakeholder management to minimize stakeholders' negative impacts and ensure that they do not hinder the successful delivery of the project.
23. **Reduce uncertainty:** Most projects have uncertainty and these intrinsic uncertainties need to be integration in order to achieve beneficial objectives of project.
24. **Higher authority support:** The top-level management support is important because the higher authority monitor the management process of the project and also give a realistic solution when problem arises between stakeholders.
25. **Frequently communication with engaged stakeholders:** Communication with the engaged stakeholder is must necessary for project. There are many stakeholders involve in the project, therefore

communication is important to update the stakeholder about the work.

26. **Keeping and promoting good relationships with stakeholders:** Project management team have to maintain a good relationship with external and internal stakeholder for successful completion of the projects and to meet the stakeholders' expectations.
27. **Maintain alignment among stakeholders:** To build the trust between project team members and internal and external stakeholder, it is important to maintain alignment between stakeholders.

VII. CONCLUSION

The effective stakeholder management process is applicable for successful delivery of any project. To complete the within time, cost and quality, it is important to recognition the various factors which critically affects the stakeholder management process. Based on the past literatures an identification of factors has been done and from that the most critical factors which affects the stakeholder management are: setting common goals and formulating clear statement of project mission, Identifying stakeholders properly, ensuring effective communication, assessing proper sources to the project, Keeping and promoting good relationships with stakeholders. The role of project manager is essential to the successful relationship management of stakeholder. Therefore, it is recommended that the different companies or agencies have to recruit the project manager based on his competencies.

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