A CRITICAL SUCCESS FACTORS INVOLVED IN STAKEHOLDER MANAGEMENT IN CONSTRUCTION INDUSTRY

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ABSTRACT

In this modern global economy, stakeholder’s commitment is gradually turning into a piece of growth project practice to carry superb project results. Actually, stakeholder’s reorganization is a very important thing for the basic initial stage and it should happen before a promise proposal is planned and counsels start. The purpose of study is to recognize & rank the most critical success factors (CSFs) that affect in stakeholder management process in construction project. For the successful completion of project these three factors act as key factors 1. Effective and Proper communication, 2. Promote a good atmosphere and healthy relationship with stakeholder, 3. Analysis and identification of stakeholder among the project

Keywords: Stakeholder, Stakeholder management, Critical success factor, Relative importance index (RII)

I. INTRODUCTION

Stakeholders can be defined as persons or groups of persons will have a stake, rights, possession, or a keen interest in a project and its events. The stakeholders in a project will be of two types as internal and external. Project Stakeholder Management contains the sequences needed to identify the individuals, groups of people, or associations which will affect or be affected by the project, to examine stakeholders’ desires and their influence on the project, and to create proper management strategies for effectually engaging stakeholders in project choices and implementation. Stakeholders’ management also emphasizes on continuous communication with stakeholder to understand their necessities and desires, addressing to issues as they happen, managing conflicting interests and cultivating suitable stakeholder commitment in project choices and exercises.

II. OBJECTIVE

To recognize & rank the most critical success factors (CSFs) that affect in stakeholder management process in construction project.

III. METHODOLOGY

The accepted method which is castoff to complete project is the following procedures:

1. Assessment of the literature related to stakeholder management,
2. Survey for collecting data
3. Data analysis.
4. Opinion of project manager on result/conclusion

The questionnaire is designed by considering 16 critical success factors are as follows:

1. Analysis and identification of stakeholder among the project.
2. Lack of project managers attainment / skill.
3. Understand needs and expectations of different stakeholder among the project.
4. Study of stakeholder attitude, interests, influence.
5. Evaluate the attribute of stakeholder’s power, legitimacy, urgency.
6. Effective and Proper communication.
7. Predict stakeholders’ reaction to make decisions about strategies to deal with them.
8. Formulate appropriate strategies to engage stakeholders throughout the project.

9. Implement different strategies for stakeholder management.

10. Promote a good atmosphere and healthy relationship with stakeholder.

11. Participation/involvement of stakeholders in different stages of project.

12. Influence of higher authorities in management.

13. Compromise/resolve conflicts among the stakeholders.


15. Analyzing the change of stakeholder.

16. Use software's for effective management.

**Data collection**

For the data collection, google form created and the google form send to more than 150 project managers. Social platform used to reach number of stakeholders. After a couple of days, we get 40 response.

**IV. ANALYSIS**

The procedure used in analyzing of data was expected at beginning is the relative importance index (RII) of the numerous critical success factors. There are two steps used in analyzing the data:

- Finding the relative importance index
- Grading of each factor based on relative importance index.

For data analysis Linear scale used and the weightage given is as follows

1 for strongly disagree
2 for disagree
3 for neutral
4 for agree
5 for strongly agree

**Calculation of Relative Importance Index (RII)**

\[
Relative \text{ Importance} \ Index = \frac{\sum w}{AN} = \frac{5n_1 + 4n_2 + 3n_3 + 2n_4 + n_5}{AN}
\]

Where \( w \) is the weighting given to each factor by the respondent, ranging from 1 to 5. For example, \( n_1 \) = number of respondents for Little Important, \( n_2 \) = number of respondents for Some Important, \( n_3 \) = number of respondents for Quite Important, \( n_4 \) = number of respondents for Important, \( n_5 \) = number of respondents for Very Important. \( A \) is the highest weight (i.e. 5 in the study) and \( N \) is the total number of respondents. The relative importance index ranges from 0 to 1 (Tam and Le, 2000).

**Figure-1:** Relative Importance Index
V. RESULTS AND DISCUSSION

Ranking of each factor based on relative importance index

<table>
<thead>
<tr>
<th>Q. no.</th>
<th>List of question</th>
<th>RII</th>
</tr>
</thead>
<tbody>
<tr>
<td>6.</td>
<td>Effective and Proper communication.</td>
<td>0.935</td>
</tr>
<tr>
<td>10.</td>
<td>Promote a good atmosphere and healthy relationship with stake-holder.</td>
<td>0.905</td>
</tr>
<tr>
<td>1.</td>
<td>Analysis and identification of stake-holder among the project.</td>
<td>0.9</td>
</tr>
<tr>
<td>3.</td>
<td>Understand needs and expectations of different stake-holder among the project.</td>
<td>0.875</td>
</tr>
<tr>
<td>11.</td>
<td>Participation / involvement of stake-holders in different stages of project.</td>
<td>0.865</td>
</tr>
<tr>
<td>8.</td>
<td>Formulate appropriate strategies to engage stake-holders throughout the project.</td>
<td>0.86</td>
</tr>
<tr>
<td>5.</td>
<td>Evaluate the attribute of stake-holder's power, legitimacy, urgency.</td>
<td>0.84103</td>
</tr>
<tr>
<td>13.</td>
<td>Compromise / resolve conflicts among the stake-holders.</td>
<td>0.82564</td>
</tr>
<tr>
<td>4.</td>
<td>Study of stake-holder's attitude, interests, influence.</td>
<td>0.825</td>
</tr>
<tr>
<td>14.</td>
<td>Analyzing conflicts and coalitions among the stake-holder.</td>
<td>0.81026</td>
</tr>
<tr>
<td>12.</td>
<td>Influence of higher authorities in management.</td>
<td>0.78974</td>
</tr>
<tr>
<td>9.</td>
<td>Implement different strategies for stake-holder management.</td>
<td>0.78</td>
</tr>
<tr>
<td>16.</td>
<td>Use software's for effective management.</td>
<td>0.77436</td>
</tr>
<tr>
<td>15.</td>
<td>Analyzing the change of stake-holder.</td>
<td>0.75385</td>
</tr>
<tr>
<td>2.</td>
<td>Lack of project managers attainment / skill.</td>
<td>0.75</td>
</tr>
<tr>
<td>7.</td>
<td>Predict stake-holder's reaction to make decisions about strategies to deal with them.</td>
<td>0.75</td>
</tr>
</tbody>
</table>

The CSFs and the perception of successful stakeholder management is as follows:

1. **Effective and Proper communication**

Effective, ordinary, and deliberate verbal exchange with all stake-holder many of the undertaking is necessary for successful finishing touch of challenge. Setting up standard procedures for powerful stake-holder’s verbal exchange will shop time, remove limitations and subsequently, end the mission on time and within budget. There are several communication methods and some of them methods listed below:

- Schedule periodic meetings with stake-holder.
- Separate screen to screen meetings.
- Inform stake-holders by sending emails, newsletter.
- Schedule conference call.
- Arrange project reports and ask for feedback.
1. Arrange informal meetings such as lunch meetings.

2. **Promote a good atmosphere and healthy relationship with stake-holder.**

   Its stake-holders are critical for a hit transport of projects and meeting stake-holder expectations. Trust and promise among stake-holders may be constructed and maintained via an effective relationship’s control. Depending on the scope of assignment/organization, stake-holder’s dating can be evolved at all the stages: nationally, regionally, and domestically. Following are the several factors helps to maintain strong relationship:
   - Create stake-holder’s group according to their level of interest and power
   - Gain stake-holders trust right from start
   - Meet up with stake-holder who are impervious to change

3. **Analysis and identification of stake-holder among the project.**

   Identification of Stake-holders is the system of recognizing the people, agencies of humans or businesses that could obstructed through a decision, pastime, or outcome of the task. The importance of this method is that it lets in the undertaking manager to perceive the right emphasis for each stake-holder or group of stake-holders. Stake-holders include no longer only all of the individuals of the venture group however additionally all of the fascinated entities which might be internal or external to the organization. The venture team recognizes stake-holder consisting of inner, external, tremendous, terrible stake-holders in an effort to govern the project necessities.

   Stake-holder evaluation is a method of methodically amassing and analyzing the both measurable and quality-wise statistics to control whose benefits need to be taken under consideration. It identifies the electricity, urgency, legitimacy, interests, expectancies, and have an impact on of the stake-holders and relates them to the cause of the successful of completion of mission.

4. **Understand needs and expectations of different stake-holder among the project.**

   Needs and expectation of different stake-holder may be affected, each positively and negatively, all through the construction mission. Deteriorating to realize and encounter the expectancies of stake-holders tangled has led to project failures. During the assignment, all stake-holders’ wishes should be assessed “in order that a first-class, sensible and realistic solution to the trouble being addressed is received”.

5. **Participation / involvement of stake-holders in different stages of project.**

   During the class of the stake-holder it is also important to become aware of the participation / involvement of stake-holder in numerous degrees of challenge such as Prefeasibility Phase, Feasibility Phase, Planning Phase, Execution Phase,

   Closing Phase etc. Participation / involvement of venture stake-holders in unique levels of production assignment may be beneficial in several methods. Identifying and analyzing stake-holder worries in creation initiatives are crucial responsibilities all through the participation procedure so as to reach at a consensus and avoid venture failures. It will help to formulate one-of-a-kind techniques to manage stake-holder.

6. **Formulate appropriate strategies to engage stake-holders throughout the project.**

   An applicable strategy to have interaction stake-holder results minimum resistance from stake-holders throughout the project. Manage Stake-holder Engagement is that the approach toward conveyancing and dealing with partners to handle their issues/desires, address problems as they happen, and encourage correct partner commitment in project exercises at some stage in the task life-cycle. The project manager can expand backing and therefore there is great chance to attain project success is the main thing about this procedure.

7. **Evaluate the attribute of stake-holder’s power, legitimacy, urgency.**

   Attribute of stake-holder’s power, legitimacy, urgency is also called silence model which put forward by Mitchell, Agle, Wood. It will helpful for Stake-holders engagement and management planning technique. The attribute of stake-holder helps to recognize the needs and expectation of stake-holder or further deep analysis. It is three-dimensional approach for narrow down stake-holders need.
Power

The term power is outlined because the capacity to “control resources, produce needs, and care the benefits of some cluster members or teams”. productive project managers ought to have the potential to acknowledge the unseen power among stake-holders.

Legitimacy

A generalized perception that the action of an entity is appropriate inside some socially made system of norms, ethics, definition. The legitimacy of a stake-holder provides a way that legitimacy reproduces the pre-set relations, lawful and ethical rights in relations between stake-holders and a project.

Urgency

The term urgency is defined as the “degree to which managers delay to attending to the claim is unacceptable to stake-holder in other words stake-holder claims for immediate attention.”

According to Mitchell et al., 1997 provided Venn diagram and in this study, stake-holder are mapped according to how they rate on each attribute.

- A – Core/ Definitive
- B - Dominant
- C – Dependent
- D – Dangerous
- E – Latent Dormant
- F – Demanding
- G – Discretionary

8. Compromise / resolve conflicts among the stake-holders.

Since there are measure various struggles among stake-holders, negotiating these struggles become necessary for project directors to create conclusions (Freeman 1984). An effective affiliation between struggle resolve by Leung et al. (2005) with a survey review. Compromise /resolve conflicts among the stake-holder results time saving and effective to maintain good relationship with stake-holder. Some of the effective methods for resolving conflicts are as follows-

- Don’t defame a particular stake-holder to other
- Don’t take any conflicts personally
- Pay close attention to non-verbal communication
- Priorities resolving the conflicts over being right
- Know when to apologize and forgive
- Don’t get defensive
- Avoid blaming others
- Listen actively before talking
- Tame your emotions
- Show that management can compromise


**Stake-holders attitude:** Stake-holders have form of attitude terrible or high-quality and which assist project manager to decide complainers and supporters. Stake-holder attitude offers an idea for managers to be alert that stake-holders have fantastic or terrible consequences on venture outcomes and it sooner or later effects a hit of completion of assignment.

**Stake-holders' pastimes:** Most of the researchers taken into consideration stake-holders interest have an effect on the a success final results of venture. Stake-holders have a conferred interest in a task for several motives inclusive of mission felony right, political guide, opportunism relevancy, monetary hobby, and survival.

**Stake-holders influence:** Identifying the stake-holders' impact is significant to "plot and perform a appropriately severe stake-holder organization technique". The "stake-holder effect index", and that they take into account that analyzing the capability impact of stake-holders designates to determine the nature and effect of stake-holder have an impact on, the probability of stake-holders training their influence and every stake-holder’s role in relation to the task.

10. Analyzing conflicts and coalitions among the stake-holder.

Analyzing the conflicts and coalitions amongst stake-holders is an important / big step for stake-holder management. Project managers should also look for in all likelihood coalitions amongst stake-holders. This concept originates from Freeman's manner model (Freeman 1984). Freemans trusts that the companies, who proportion objectives, stake-holders, or pursuits about the mission, can be greater probably to shape coalitions. In fact, conflicting events are searching for together first-rate answers, which can be carried out by joint crucial thinking to look for alternative solutions. An increased degree of communication amongst parties can assist in reaching a together desirable solution. On the choice hand, a hard and fast of steps to remedy variations between stake-holder, to affect battle through deciding a distinction previous and when it attain the degree of a dispute.

11. Influence of higher authorities in management.

The higher-level backing is very significant for management sports, in associate degree organization with a developed stake-holder management setting, the upper authorities typically monitor the management methodology, facilitate working out issues, and used the results of stake-holder management as a trademark for overall performance dimension of the management cluster.

12. Implement different strategies for stake-holder management.

Implement one-of-a-kind strategies for stake-holder management helps corporation in coping with stake-holder and enables to preserve interact stake-holder. Also, it will help for choice making, ultimately assignment supervisor advances a clear picture of what is going to be required for execution. According to Karlson 2002 "there are extraordinary kinds of the strategies, however basically the stake-holder control approach is the mentality how the project supervisory group handles various stake-holder".

13. Use software's for effective management.

For better results and effective management software works as guide for project manager. Following two software's were widely used in construction projects.
• Stake-holder engagement software program that provides businesses a single platform for planning, engaging, and measuring the fulfillment of their stake-holder engagement method. Borealis is one of the software programs that is used by many firms for stake-holder control. Software like Borealis also assist in identifying wishes, building, and schooling teams, and so on.

• Stake-holder Relationship Management (SRM) software program is designed exactly for network and stake-holder engagement. SRM is likewise designed to track and analyze the cause and content of the engagement with the stake-holders. An SRM is designed around apprehend the engagement with the stake-holder – their wishes, priorities, and concerns. But more importantly, software enables to get qualitative evaluation and advanced reporting on stake-holder's engagement activities.

14. Analyzing the change of stake-holder

During the one-of-a-kind creation phases dynamics of stake-holder adjustments over the time. The ideas of the change of stake-holder and dynamics of stake-holders had been recognized with the aid of Freeman (1984). According to Freeman, stake-holders and their have an effect on amendment over time, and this be subject to the strategic problem beneath attention. In 2002 Elias et al. Acknowledged dynamics of stake-holder is a completely exciting and crucial component of the stake-holder idea.

15. Lack of project managers attainment / skill

Project managers play the lead function in planning, executing, monitoring, controlling, and final projects. Project managers are answerable for the entire mission scope, assignment team, assets, and the success or failure of the venture. Project control abilities talk over with the core competencies which are vital to efficaciously carry a undertaking from start to finish. An assignment supervisor no longer only organized, knowledgeable and able to multitask however additionally an excellent communicator, sturdy chief, and effective hassle-solver.

16. Predict stake-holder's reaction to make decisions about strategies to deal with them.

Prediction of stake-holder's response after imposing sure techniques for stake-holder control is likewise important. Stake-holders response to the techniques is a crucial together with different factors while challenge supervisor make decision approximately techniques to cope with stake-holder. By creating use of fuzzy set technique, Cleland stressed his studies on the likelihood and suitableness of techniques for stake-holders. Therefore, a venture crew ought to proceed to predict stake-holder behavior in corporal punishment methodology (Cleland and Ireland 2002).

VI. CONCLUSION

After the discussion with respondents and project managers we have a tendency to conclude that the effective and correct communication, sensible relation and healthy atmosphere that have an effect on the stake-holder management method in construction project. Putting in place SOP for effective stake-holder's communication can save time, take away obstacle and eventually project completed among budget. Looking on the scope of the project stake-holder's relationship is developed in any respect levels regionally, regionally and nationwide. Trust and commitment among stake-holders is designed up and maintained by economical relationship management. the importance of identification and analysis of stake-holder method is that it permits the project manager to spot the acceptable focus for every stake-holder or cluster of stake-holders. It identifies the facility, urgency, legitimacy, interests, expectations, and influence of the stake-holders and relates them to the aim of the triple-crown completion of project.

VII. REFERENCES


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