



THE IMPORTANCE AND ROLE OF STAKEHOLDER MANAGEMENT IN SOLVING MEGA-PROJECT PROBLEMS

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ABSTRACT

Stakeholder problems are considered problems that affect time and cost directly because the project that will be implemented often conflicts with previously implemented projects such as water lines, gas, electricity, telephones, etc... or with private parties. Therefore, having stakeholder management is very important to identify all the obstacles before starting the project and then work on solving them so that there are no problems with the stakeholders. A simple questionnaire was conducted to obtain the opinion of experts about the importance of having a stakeholder management in each executive and supervisory institution to work on removing obstacles and not causing any disruption in the project's time or cost, because time is completely linked to cost, the more time increases the cost. The vast majority agreed to establish a stakeholder department like all other departments in major companies so that they have certain tasks that help raise the rate of performance and control the time and cost of large projects. The tasks required of the stakeholder management have been agreed upon according to previous research and interviews.

Key words: Stakeholder engineer, Stakeholder management, Stakeholder analysis, Mega projects, Project management.

1. INTRODUCTION AND BACKGROUND

Due to the recent development in civil engineering, civil engineering has been divided into many departments in the study, and also many departments have been worked in companies and executive and supervisory institutions, and all of these departments work to increase productivity and improve performance. Therefore, international companies find that they have a foundations department, a quality department, an infrastructure department, a bridges department, a tunnel department, a contracts department, a procurement department, a survey department, a quantity surveying department, and many other departments. This is in major and international companies.

But when a problem occurs with external stakeholders, it is dealt with through conversations between one of the representatives of the owner and one of the representatives of the executing company, the parties to the stakeholders to solve this problem and for this reason why not have a separate stakeholder section to solve the problems so as not to affect the time and cost of the project. The presence of a stakeholder department helps all departments in their work, starting from the contracts department to the finishing department and project delivery, and also helps to set appropriate prices according to the existing symptoms and also set a detailed logical schedule.

The stakeholder section will make the project manager and executive engineers more focused on the project and raise efficiency rather than focusing outside the project. The stakeholder section will increase the company's efficiency and increase its productivity and reputation

And from the above in this research and my previous reading of previous Researches (e.g., Doloi (2013); Yang et al (2014); Mok .et al (2015); Botwe, et al ,Sintayehu Assefa.et.al (2015) 2016); Górecka and Górecki (2017); Ahmed A. Ali Hraisha) 2015 ,Safapour et al (2019)) According to previous researches, a lot of researches has spoken about the importance of stakeholder problems. The Project Management Institute stressed the importance of paying attention to stakeholder problems in the fifth and sixth editions because they directly affect the time and time of the project. "Identify Stakeholders is the process of identifying the people, groups, or organizations that could impact or be impacted by a decision, activity, or outcome of the project, analyzing and documenting relevant information regarding their interests, involvement, interdependencies, influence, and potential impact on project success. The key benefit of this process is that it allows the project manager to identify the appropriate focus for each stakeholder or group of stakeholders" (PMBOK® Guide) – Fifth Edition. "Identify Stakeholders is the process of identifying project stakeholders regularly and analyzing and documenting relevant information regarding their interests, involvement, interdependencies, influence, and potential impact on project success. The key benefit of this process is that it enables the project team to identify the appropriate focus for engagement of each stakeholder or group of stakeholders" (PMBOK® GUIDE) Sixth Edition. Later, we will determine the role of the stakeholder department.

2. RESEARCH METHODOLOGY

A questionnaire was prepared containing 10 questions about stakeholders, including the proposal of a stakeholder department to solve the problems of stakeholders, and notes that many them accepted this proposal and good comments on this proposal. Several engineers are working on mega projects have been selected with at least ten years of experience. I used a simple size equation, which roughly shows the number of engineers required to make the questionnaire that Marzouq et al. (2015) used in their survey of construction. They used the equation:

$$n = \frac{\left[\left(\frac{z_{\alpha}}{2}\right) * p * (1-p)\right]}{d^2} \dots\dots\dots (1)$$

Where, $\left(\frac{z_{\alpha}}{2}\right) = 1.645$, d is the accepted error = 10%, p is the ratio of experts in mega projects (3000) to the total civil engineers (200,000),the estimated sample equals 4. In this study 50 experts were invited to fill in the questionnaire, 40 of them completed the questionnaire (80%).

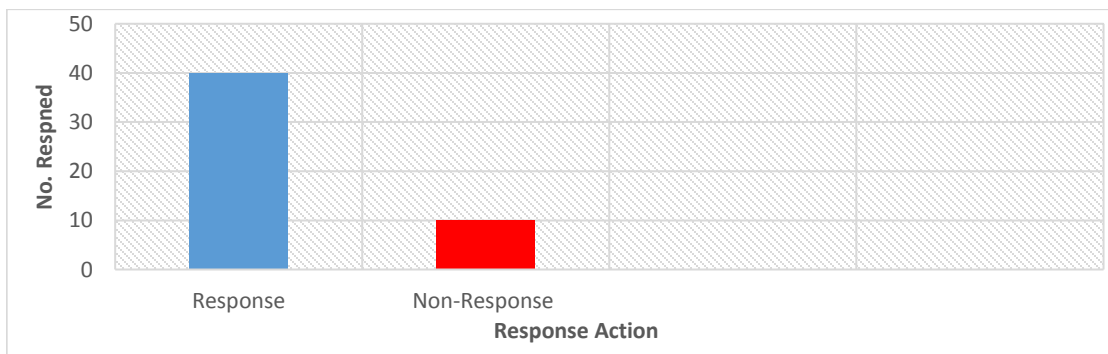


Figure (1) response & nonresponse in the questionnaire

3. RESPONDENTS' CLASSIFICATION

a- Experiences

Experiences	10—20 years	More than 20 years
NO	30	10

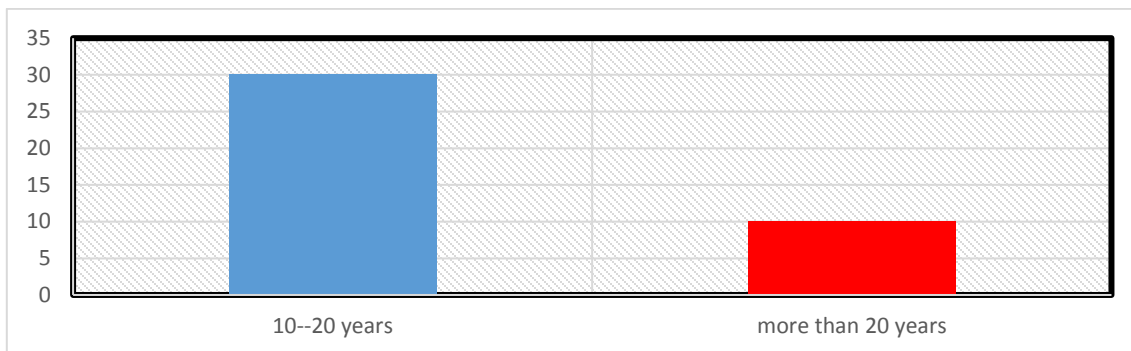


Figure (2) Experiences of engineers in the questionnaire

b- owner or(consultants) engineer /contractor engineer

The consultant is often delegated to carry out the work of the owner in major projects, so we will divide the engineers into consultants and contractors to learn about different points of view.

Engineers	consultant	contractor
NO	15	25

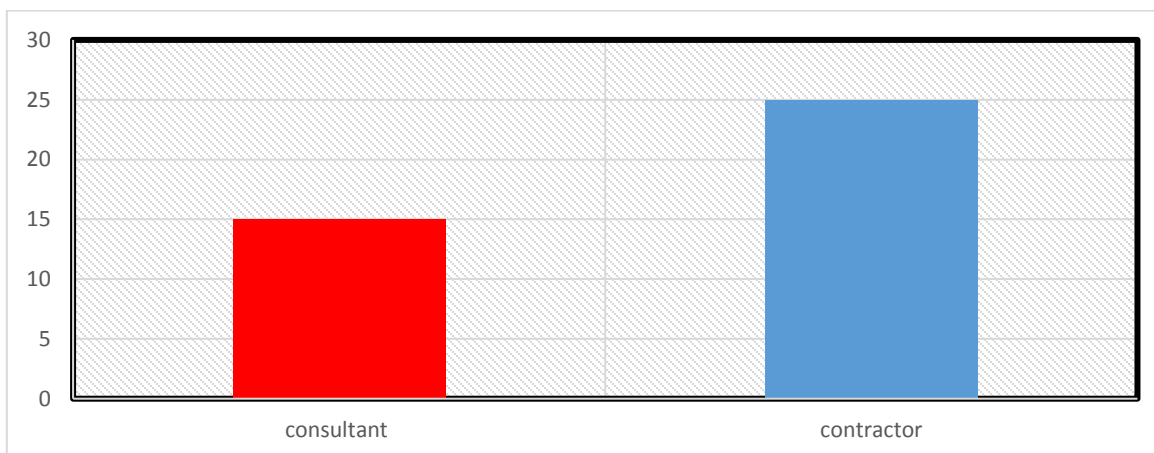


Figure (3) owner or(consultants) engineer /contractor engineer in the questionnaire.

4. DATA ANALYSIS AND RESULTS DISCUSSION

After reviewing the results of the questionnaire then analyzing the results and opinions of experts, the most important elements of the questionnaire were reached:

4.1- Maximum downtime part of the project due to stakeholder problems: -

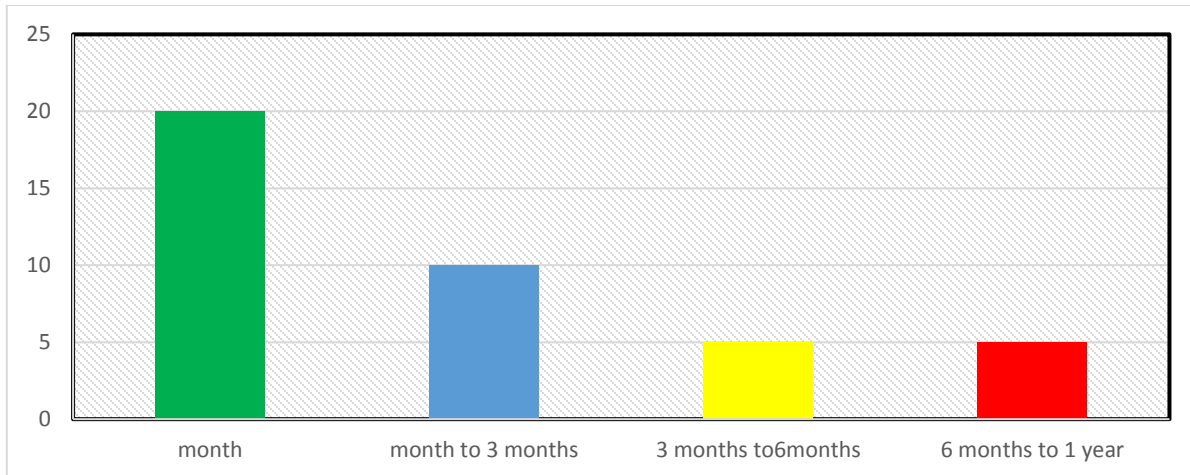


Figure (4): the pause in Part of the project as a result of the change in design or lack of coordination between the project managers and stakeholders

The previous table shows that twenty engineers had a month's suspension due to the stakeholders' problems and ten engineers had part of the project stopped for a period of three months and five engineers had part of the project stopped for a period of six months and a year. This indicates that the stakeholders' problems affect the time and cost and emphasizes the importance of having Stakeholder section. See Figure (4)

4.2 Time Schedule of Project

The schedule for the project is determined according to all the previous elements, but when an imbalance occurs in this schedule as a result of any of the stakeholders, the rest of the stakeholder elements will be affected according to this an imbalance.

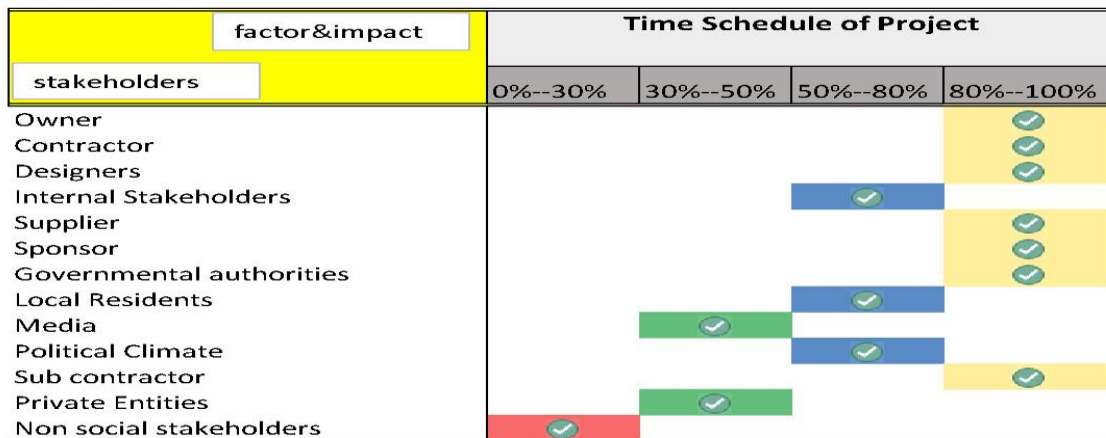


Figure (6): Stakeholder impact ratios on a Time Schedule of Project

It is clear that the majority of stakeholders are affected by the Time Schedule of Project and this is normal because a delay in the Time Schedule of Project leads to an imbalance in financial matters among the stakeholders

4.3 stakeholders’ department suggestion

I suggested to the engineers participating in the questionnaire the idea of creating a new department, a stakeholder department. The majority of respondents welcomed the idea very high and some suggested the necessary features in the personality of the stakeholder engineer. About 95% agree to create stakeholder department.

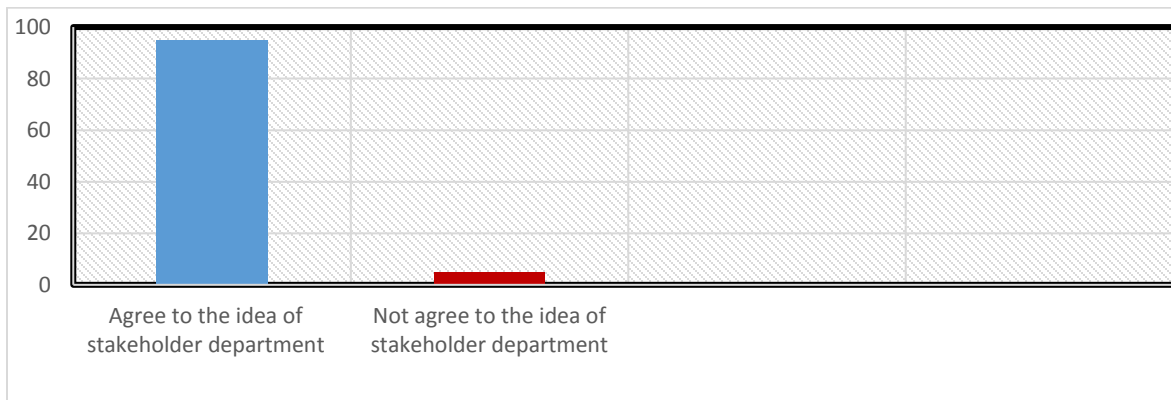


Figure (7) Proportion of those who agree to create a stakeholder department

4.4. Tasks assigned to the stakeholder management department

Through previous research and interviews with engineers and experts, the main tasks of stakeholder management were deduced.

The steps are as follows:

- **Read the project contract and conclude all stakeholders with the project:** Reading the contract is very important for stakeholder management to infer stakeholders and identify and analyze each of them individually

- **Read all project charts** : Read all the project schematic panels to know the points of intersection with the implemented projects of electricity, gas, water and others to identify and analyze stakeholders.
- **Check out the entire project site**: by visiting the project site, other matters related to stakeholders will become clear in terms of the strategic and cultural importance of the place, alternative methods, and others.
- **Make a comprehensive analysis of all stakeholders conflicting with the project** :Through the first three points, the stakeholders are identified, an analysis is done for each of them, and the primary solutions and alternative solutions are concluded.
- **Initiate communication with stakeholders and conduct meetings**: This is the most important step because it is the beginning of dealing with stakeholders and the beginning of implementation, from which solutions and alternative solutions are agreed upon.
- **Follow up the implementation of the solutions plan and alternative solutions**: The implementation of solutions to stakeholders' problems must be followed up and the timeline for them to be completed without problems affecting the time and cost of the project.
- **Ensure that the project is delivered without any problems with stakeholders**: Ensure that the place is returned to its original origin and that there are no environmental or structural damages around the project site.

5. CONCLUSIONS & RECOMMENDATIONS

-In this research, the importance and role of stakeholder management in mega-projects was discussed, and it was found from the above that there are problems that affect time and cost due to lack of interest in stakeholders. Through interviews and a simple questionnaire, it was discovered that some parts of the projects were suspended for a year due to ignoring stakeholders. Also, through previous interviews and research, the most important tasks assigned to stakeholder management were identified.

-We recommend that the performance of the stakeholder department be further developed through the application of practical experience in future researches

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