

Effect of Stakeholders' Risk Attitude on the Application of Project Risk Management

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Abstract

Project stakeholders are those people, groups, or organizations that could impact or be impacted by the project. Successful stakeholder management includes identifying potential stakeholder, analyzing their expectations and their impact on the project and developing appropriate management strategies for effectively engaging them in project decisions and execution. A wide range of factors influence risk attitude including: the scale of the project within the range of stakeholders' overall activities, the strength of public commitments made about the performance of the project, and the stakeholders' sensitivity to issues such as environmental impacts, industrial relations and satisfaction degree of all potential stakeholders. Risk management processes include planning, identification, qualitative and quantitative analysis, response and monitor and control. Understanding stakeholders' attitudes toward risk is an important component of risk management planning that precedes risk identification and analysis, in order to optimize both project success and stakeholder satisfaction with the project's results. This paper will spot the lights on stakeholder identification and analysis, their impact on the project through Salience Model, their different attitudes towards project risks and how these factors will count during risk management application in the construction industry. A questionnaire survey was conducted to a sample representing different parties of construction industry consisting of two parts: the first part of the questionnaire addresses factors affecting stakeholders' risk attitude, while the second part analyzes different categories of stakeholders according to Salience Model and their tendency to behave in different risk attitude, namely: risk averter, risk seeker and risk neutral.

Keywords

Project Stakeholders, Risk Management Processes, and Risk attitudes.

1. Introduction

Project Stakeholder Management includes the processes required to identify the people, groups, or organizations that could impact or be impacted by the project, to analyze stakeholder expectations and their impact on the project, and to develop appropriate management strategies for effectively engaging stakeholders in project decisions and execution. Stakeholder management also focuses on continuous communication with stakeholders to understand their needs and expectations, addressing issues as they occur, managing conflicting interests and fostering appropriate stakeholder engagement in project decisions and activities. Stakeholder satisfaction should be managed as a key project objective.

It is critical for project success to identify the stakeholders early in the project or phase and to analyze their levels of interest, their individual expectations, as well as their importance and

influence. This initial assessment should be reviewed and updated regularly. Most projects will have a diverse number of stakeholders depending on their size, type, and complexity. While the project manager's time is limited and should be used as efficiently as possible, these stakeholders should be classified according to their interest, influence, and involvement in the project, taking into consideration the fact that the affect or influence of a stakeholder may not occur or become evident until later stages in the project or phase. This enables the project manager to focus on the relationships necessary to ensure the success of the project. Figure 1 shows potential project stakeholders.

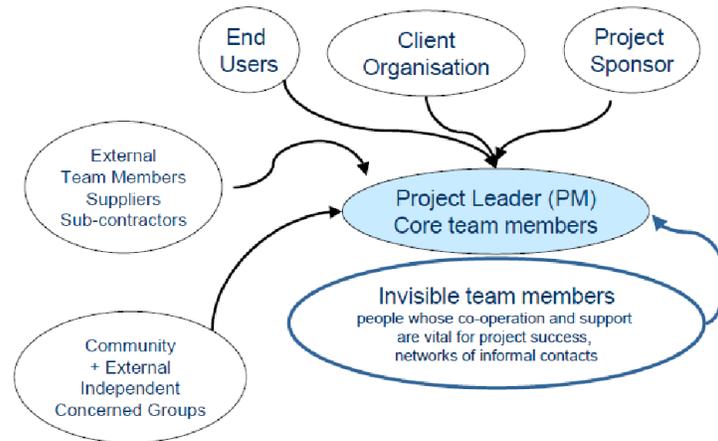


Figure 1: Potential project stakeholders

Project Risk Management includes the processes of conducting risk management planning, identification, analysis, response planning, and controlling risk on a project. The objectives of project risk management are to increase the likelihood and impact of positive events, and decrease the likelihood and impact of negative events in the project.

Understanding stakeholders' attitudes toward risk is an important component of risk management planning that precedes risk identification and analysis, in order to optimize both project success and stakeholder satisfaction with the project's results. These attitudes should be identified and managed proactively and deliberately throughout the Project Risk Management process. They may differ from one project to another for the same stakeholders and will usually differ from one group of stakeholders to another. In fact a single stakeholder may adopt different risk attitudes at various stages in the same project. It is also important to understand the particular implications of stakeholder risk attitudes on projects where the team is international, cross-industry, or multi-organizational.

2. Project Stakeholders

A stakeholder is simply anyone with a stake in the project either direct or indirect. Project Management Institute says that stakeholders for a project are persons or organizations who are actively involved; whose interests may be positively or negatively affected by the performance or completion of it. Stakeholder analysis is a process of systematically gathering and analyzing qualitative information to determine whose interests should be taken into account when developing and/or implementing a policy or program.

The more complex your project is, the more attention you need to pay in managing stakeholders. You can do all the right things for a project, but mismanaging a stakeholder who has power, influence and interest can cause failure of the project.

Mitchell, Agle and Wood (1997-99) have come up with stakeholder analysis model, that can help a project manager in early phase of planning process to identify stakeholder and classify according to three major attributes:

1. Power – to influence the organization or project deliverables (coercive, financial or material, brand or image);
2. Legitimacy – of the relationship & actions in terms of desirability, properness or appropriateness;
3. Urgency – of the requirements in terms of criticality & time sensitivity for the stakeholder.

Based on the combination of these attributes, priority is assigned to the stakeholder. Figure 2 illustrate the Salience Model and stakeholder classification.

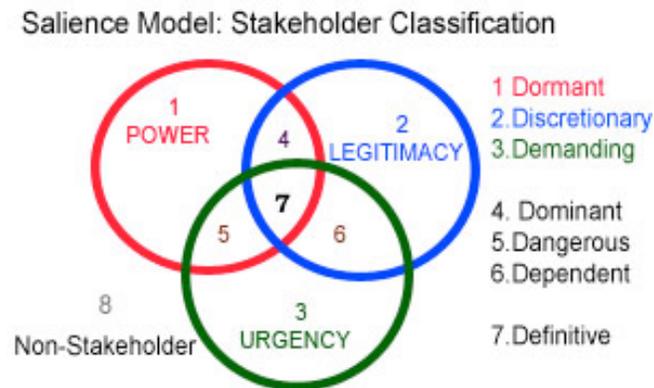


Figure 2: Salience Model, Mitchell et al. (1997)

The different stakeholder classification is defined in four classes and eight categories:

- A) Low salience classes: Also defined as latent stakeholders and possesses only one of the three attributes and includes: dormant, discretionary and demanding stakeholders.
- B) Medium salience classes: Also defined as expectant stakeholders and possesses two of the three attributes and includes: dominant, dangerous and dependent stakeholders.
- C) High salience classes: Also defined as definitive stakeholders and possesses all of the three attributes and includes: definitive or core stakeholders.

Table 1 summarize stakeholder classes. The eight stakeholders categories are described below:

1. Dormant: Possibly the best category project stakeholders. These stakeholders only get into the project, if there is something has gone horribly wrong with it. Over-communication of micro-level details with them is also not a great thing to do.
2. Discretionary: Another wonderful classification of project stakeholders. Give them regular status updates and they'll be happy.
3. Demanding: Such stakeholders in the Salience Model are people that always seem to think that their work needs your immediate attention. If you spend too much time and effort on these stakeholders, you won't actually gain too much project mileage. There are other more important people to work with.
4. Dominant: Such project stakeholders have power and legitimacy, but do not have urgency. You should focus on their expectations, but always there is not a lot of urgency.
5. Dangerous: Appropriately named classification, these stakeholders have power and urgency, but no legitimacy. Imagine a very senior person trying to force her views on the outcome of your project, without really being a part of it! A Project Manager needs to keep such stakeholders appropriately engaged or satisfied.

6. Dependent: As per the Saliency Model, these project stakeholders have no real power on the project. However, they need to be managed because they can quite easily choose to align themselves with other project stakeholders and hence influence your project.
7. Definitive: These are the critical project stakeholders. As a Project Manager, you need to provide focused attention to these stakeholders.
8. Non-stakeholders: These people are not stakeholders in the project. Investing time and effort on such people will not help you shape the outcome of your project in any manner.

Table 1: Stakeholders classes

Level 3 (High Priority)	7 - Definitive Power, Legitimacy & Urgency		
Level 2 (Medium Priority)	4 – Dominant Power & Legitimacy	5 - Dangerous Power & Urgency	6 – Dependent Legitimacy & Urgency
Level 1 (Low Priority)	1 – Dormant Power	2 – Discretionary Legitimacy	3 – Demanding Urgency

3. Risk Management Processes

Project risk management includes, planning, identification, analysis (qualitative & quantitative), response and monitor & control. Figure 3 shows the six risk management processes according to Project Management Body of Knowledge, PMBOK 5th edition.



Figure 3: Risk Management Processes

4. Risk Attitudes

The risk attitudes of the project stakeholders determine the extent to which an individual risk or overall project risk matters. A wide range of factors influence risk attitude. These include the scale of the project within the range of stakeholders' overall activities, the strength of public commitments made about the performance of the project, and the stakeholders' sensitivity to issues such as environmental impacts, industrial relations, and other factors. Stakeholder risk attitudes usually result in a desire for increased certainty in project outcomes, and may express a preference for one project objective over another. How risk is regarded is usually also strongly influenced by an organization's culture. Different organizations are more or less open, and this often impacts the way risk management can be applied.

Understanding stakeholders' attitudes toward risk is an important component of risk management planning that precedes risk identification and analysis, in order to optimize both project success and stakeholder satisfaction with the project's results. These attitudes should be identified and managed proactively and deliberately throughout the Project Risk Management process. They may differ from one project to another for the same stakeholders and will usually differ from one group of stakeholders to another. In fact a single stakeholder may adopt different risk attitudes at various stages in the same project.

Three risk attitudes would represent what most organizations or key stakeholders practice: risk averter, risk seeker and risk neutral. Figure 4 illustrates risk attitudes.

Risk averter: usually do not likely to take a risky projects.

Risk seeker: prefers an uncertain outcome and may be willing to pay a penalty to take a high risk.

Risk neutral: deals with risks in proportion to the amount of money at stake.

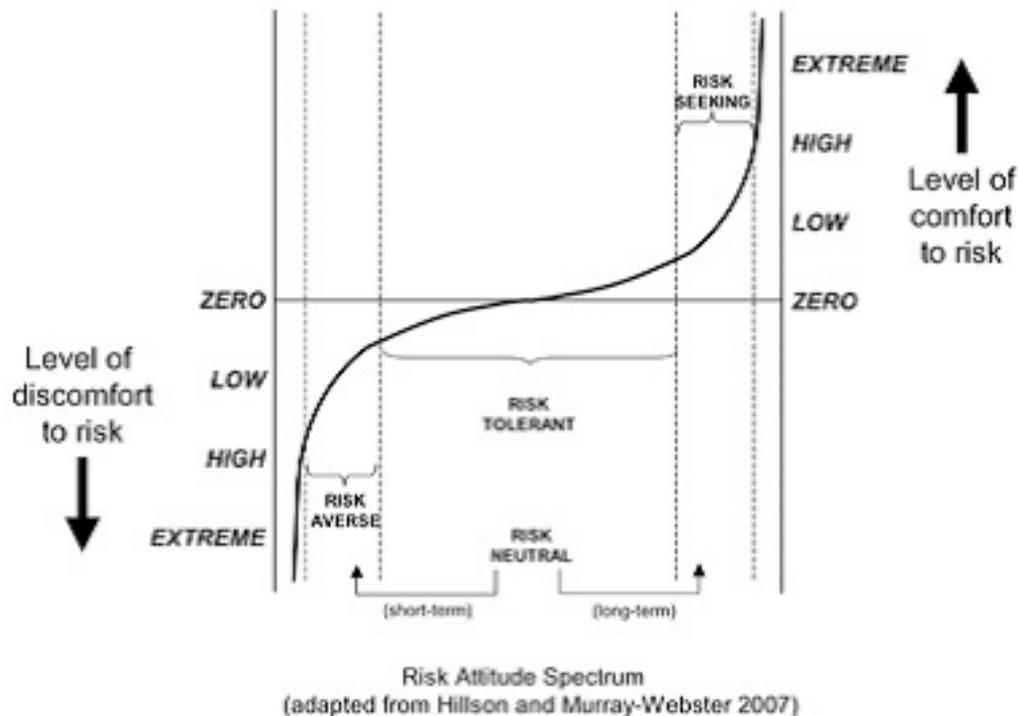


Figure 4: Risk Attitudes

5. Questionnaire Design and Analysis

A questionnaire survey was conducted on a sample of construction industry parties (Owners, Consultants, Project Managers and Contractors) in Egypt. Seventy questionnaires were distributed to the target sample to collect their opinion about relationship between stakeholders' attitudes and the application of project risk management. Consisting of two main parts: the first part measures the importance of each factor affecting stakeholders' risk attitudes including: scale of the project to stakeholders' overall activities, strength of public commitment about project performance, project enterprise environmental factors, industrial & market relations, and satisfaction degree of all potential stakeholders. While the second part assesses the success rate of the three risk attitudes in project risk identification, analysis, response and control processes. The questionnaire was designed on a numerical scale; an expert was asked to give a percentage between 0 and 100 to reflect his/her opinion in the degree of importance/the success rate of each item. In this study, fifty six questionnaires were collected out of the seventy. The data are gathered and then analyzed to assign the resultant degree for each factor based on the summed opinion of all experts. Table 2 presents the percentage of importance of each of the five factors affecting stakeholders' risk attitudes.

Table 2: Importance Degree of Factors

Factors affecting stakeholders' risk attitudes	%
Scale of the project to stakeholders' overall activities	73
Strength of public commitment about project performance	65
Project enterprise environmental factors	92
Industrial & market relations	61
Satisfaction degree of all potential stakeholders	85

It was noticed that project enterprise environmental factors have got the highest score among the five affecting factors. Enterprise environmental factors represent the external environment the project is undertaken in including: economic, political, legal, social and technological factors. While industrial & market relations have got the lowest score. These relations represent the links with the project industry, the existing competition and market financial parameters.

Second part of questionnaire measured the success rate of the three risk attitudes in project risk identification, analysis, response and control processes. Figures 5, 6, 7 and 8 show how different risk attitudes contributes in the success rate for identifying, analyzing, responding and controlling risks respectively.

Risk averter's stakeholders tend to concentrate on identification and analysis processes while risk seeker's stakeholders concentrate on response and control processes. In the meantime, risk neutral's stakeholders maintain a balanced interest in all risk management processes.

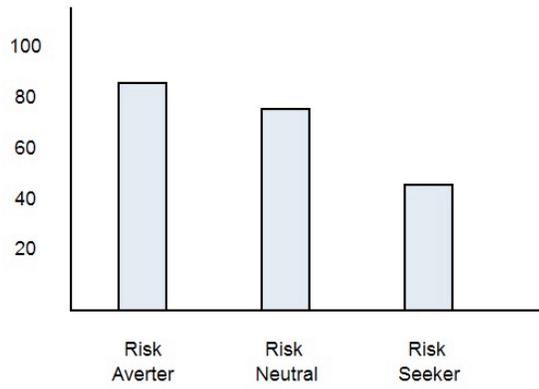


Figure 5: Risk Attitudes for Identification Process

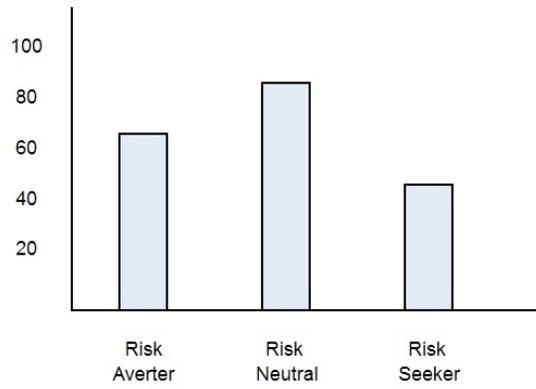


Figure 6: Risk Attitudes for Analysis Process

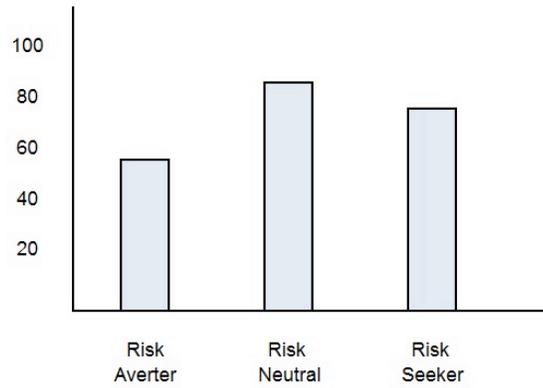


Figure 7: Risk Attitudes for Response Process

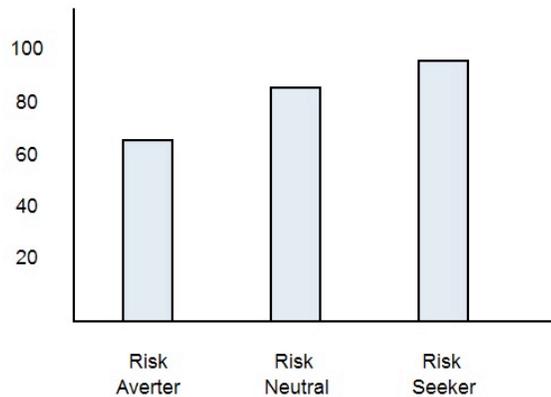


Figure 8: Risk Attitudes for Control Process

6. Conclusion

To identify the relationship between different risk attitudes and the success of the project risk management processes, a questionnaire survey was conducted to a sample representing different parties of the construction industry. Consisting of two main parts, the questionnaire addresses the important factors affecting the stakeholders' risk attitudes. The most important factors were: Project enterprise environmental factors, Satisfaction degree of all potential stakeholders and Scale of the project to stakeholders' overall activities. In the second part, different risk attitudes influences on risk management processes were measured. Risk averter's stakeholders tended to concentrate on identification and analysis processes while risk seeker's stakeholders concentrated on response and control processes. In the meantime, risk neutral's stakeholders maintained a balanced interest in all risk management processes.

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