

A STUDY OF THE CURRENT PRACTICE OF STAKEHOLDER MANAGEMENT IN CONSTRUCTION PROJECTS

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Over the past years, stakeholder management has been advocated as a means of increasing the propensity for successful delivery of construction projects. Previous research has focused on addressing the need for a practical guide to carry out stakeholder management in construction projects. However, full benefits expected from stakeholder management cannot be achieved without adequately addressing the following issues: stakeholder management decisions and responsibilities through the project life cycle; internal stakeholder collaboration in carrying out stakeholder management; stakeholder dynamics; and use of available techniques for stakeholder engagement. These issues were investigated using a questionnaire survey which aimed to explore the current practice of stakeholder management within the United Kingdom. The questionnaire comprised of closed and open-ended questions, the data from which were analysed using appropriate statistical techniques and thematic (content) analysis. The main finding was that stakeholder management is mostly not carried out deliberately and that there is need for internal stakeholders to collaborate in carrying out stakeholder management. Furthermore, dynamics in stakeholders' interests is perceived as important and gaining new information about the project is explanatory for that. Finally, the paper surmises that construction organisations need to make stakeholder management a part of their organisational policy and agenda.

Keywords: leadership, responsibility, stakeholder collaboration, stakeholder management.

INTRODUCTION

The lengthy process of design and execution of construction projects involves interaction, collaboration and negotiations among many stakeholders which may include but not limited to the clients, designers, contractors, local authorities and the general project environment (Cheeks, 2003; Winch, 2010). The focus of construction project management over the years has been on the processes leading to the effective planning and management of the complex series of activities involved in delivering successful projects (Morris 1994; Leung and Olomolaiye, 2010). The interaction and interrelationships that take place among the parties involved directly or indirectly in a construction project determine the overall successful completion of the project (Takim, 2009). The different parties involved both directly and indirectly on the project are referred to as the project stakeholders whose management is vital to achieving project success.

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The research presented in this paper focussed on investigating the current practice of stakeholder management in construction with respect to some important decisions and responsibilities for stakeholder management. Being part of an ongoing larger research, this is a step towards developing a comprehensive framework for stakeholder management in construction projects.

LITERATURE REVIEW

There are various but similar classifications of project stakeholders (Winch, 2010; Smith and Love, 2004; Newcombe, 2003). Winch (2010) uses the contractual relationship between stakeholders and the client to classifying construction project stakeholders into internal and external stakeholders (Figure 1). Internal stakeholders are those who have legal contractual relationship with the project owner and are grouped into demand and supply sides stakeholders. External stakeholders do not have any contractual relationship with the project owner, but have some rights and interests in the project and are grouped into private and public sides' stakeholders. Stakeholders can also be classified based on their relationships with and proximity to the project: Those directly involved in the decision making and operations of the project are considered as primary or direct stakeholders whilst those who do not have any direct relationship and are operating remotely from the project are considered secondary or indirect or outside stakeholders (Newcombe, 2003; Smith and Love, 2004).

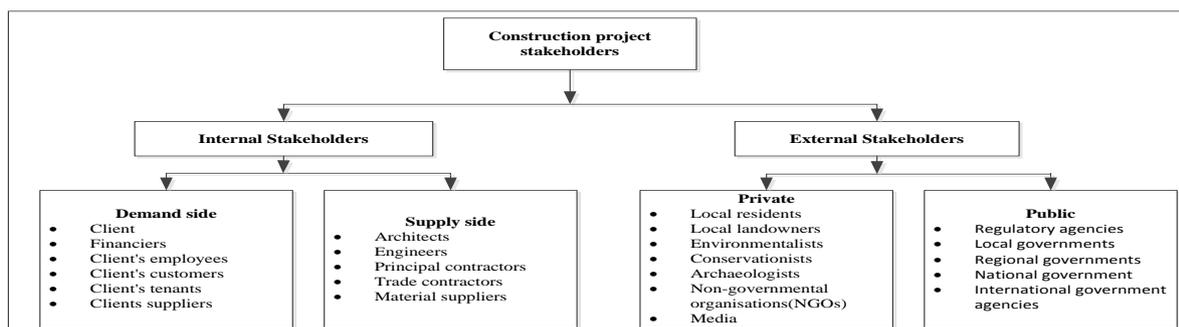


Figure 1 Stakeholder classification (Winch, 2010)

Project success has been linked to the effective and continuous engagement/management of all the project's stakeholders (Cleland, 1999; Bourne and Walker, 2005; Olander, 2007; Aaltonen *et al.*, 2008; Ward and Chapman, 2008; Chinyio and Akintoye, 2008). Likewise, construction project failures have been attributed to either lack of or inadequate stakeholder management during the project (Black, 1995; Akintoye *et al.* 2003; Bourne, 2005; Olander and Landin, 2008). Therefore, stakeholder management has been advocated as an important strategy for achieving project success in construction projects. But there is still no clear guidance on how stakeholder management can be improved to maximise the full benefits expected.

Stakeholder management is a dynamic process. Stakeholders' interests and influences are not constant and can vary from one stage to another and even from time to time in a particular stage of the project lifecycle (Cleland, 1995; Jergeas *et al.*, 2000; Olander, 2007; Aaltonen *et al.*, 2008; Ward and Chapman, 2008;). This is an indication of the dynamic relationships that exist among the stakeholders themselves as well as between the stakeholders and the project which also shows that events and actions are interdependent. How stakeholders exert their interests and concerns in construction

projects depends on their level of power which also changes as the project progresses (Pajunen, 2006; Olander, 2007). The reasons for change in stakeholders' interests during project include change of project mission, gain or loss of confidence in the project by some stakeholders, when stakeholders gain access to new/hidden information, when stakeholders are not involved or perceive they would not be involved in project decisions (Atkin and Skitmore, 2008; Olanda and Landin, 2008, Chinyio and Akintoye, 2008; Takim 2009). The stakeholders involved may have their respective expectations from the project and satisfying the expectations of project stakeholders throughout the life cycle (Inception-Design-Construction-Operation) of the project is instrumental to the successful completion of construction projects (Atkin and Skitmore, 2008; Nash *et al.*, 2010). To tackle the dynamic nature of stakeholders' interests, stakeholder involvement and management should continue throughout the entire lifecycle of the project (Takim, 2009). The reasons why stakeholders' interests may change and how they can be monitored as the project progresses have yet to be clearly understood.

Managing construction project stakeholders to achieve successful project requires team work- collaboration between the client, design and construction teams and sharing of individual skills and expertise to elicit support from all available sources. Stakeholder collaboration is a process of collective decision making among key internal stakeholders of a project to avoid or address stakeholder issues in the project. The aim of stakeholder collaboration is to build a consensus among internal stakeholders (Jamal and Getz, 1995). However, the right to participate in stakeholder collaboration does not automatically translate to the ability to perform effectively. It would therefore, be necessary to determine when stakeholders should be involved and who should coordinate stakeholder management process at different stages of the project.

The use of appropriate techniques/tools to engage project stakeholders is also instrumental to successful stakeholder management in construction projects (Yang, *et al.* 2011). Different techniques have been proposed to be used for stakeholder management including Delphi technique, strategic needs analysis, design charrette, stakeholder cycle, contingent valuation method and public hearing. The level of awareness of this techniques and how effective they are is however not covered in the literature.

Furthermore, previous research have focussed on the main steps involved in stakeholder management in construction projects including stakeholder identification, stakeholder analysis, stakeholder classification and formulating/adopting stakeholder management strategy (Newcombe, 2003; Bourne and Walker, 2005; Olander, 2007; Reed *et al.*, 2009). Some important life cycle considerations for stakeholder management in construction projects have been neglected. These include: deciding the powers and responsibility for the leadership of stakeholder management among the internal stakeholders; the need for collaboration among internal stakeholders; who should be involved in the collaboration at the various stages of construction projects and stakeholder dynamics.

RESEARCH METHOD

A questionnaire survey was designed to investigate the current practice of stakeholder management in construction projects by eliciting responses from construction professionals within United Kingdom. Professionals in architecture, construction management, quantity surveying, engineering, facility management, etc with at least

five years of relevant professional experience were targeted to participate in the survey. The questionnaire comprising closed and opened ended questions also gathered background information of the respondents in order to ensure that they have the required background and years of professional experience to take part in this survey. A minimum of 5 years relevant professional experience was set for the respondents to ensure they have participated in some projects up to completion so that they can have practical knowledge of stakeholder management issues. The respondents were asked to respond to the questions in the questionnaire based on their experience on a recently completed project in which they were involved. The questionnaire was structured into two sections. The first section collected background information of the respondents and the second section collected data on key stakeholder management issues.

The survey link was sent to 200 professionals practicing within the United Kingdom. After two reminders (at one month’s interval each) a total of 74 responses were received representing 37% of the total number of respondents to whom the survey link was emailed. Out of the 74 responses received, only 61 (30.5% of respondents contacted) were found suitable and accepted for analysis; 13 were rejected for having less than 5 years of professional experience in construction and/or for incomplete responses.

Quantitative data collected were analysed using percentages and mean ratings in IBM SPSS 20 and the qualitative data collected were analysed thematically.

DATA ANALYSIS AND RESULTS

Respondents’ profile and reliability of data: Table 1 presents the respondents’ profiles in terms of their years of professional experience and professional field of practice with all of them, having relevant experience of at least 5 years and over 78% of them having 10 years and above experience. The respondents include designers, project managers, directors, associates, project engineers, project quantity surveyors, contract administrators, clients’ representatives and facility managers. Moreover, all the targeted respondents are known to have worked on projects with multi parties and had collaborated or engaged with all or most of the parties. Prior to final questionnaire admiration, the questionnaire was pilot tested the result of which led to some amendment/adjustment to the content and structure of the questionnaire.

Table 1 Survey respondents' profiles

Professional Field	Years of Professional Experience				Total	%Total
	From 6 to 10 years	From 11 to 15 years	From 16 to 20 years	From 21 years and above		
Architecture	5	4	1	2	12	19.67
Construction Management	1	6	3	8	18	29.51
Quantity Surveying	3	3	3	5	14	22.95
Engineering	3	3	1	3	10	16.39
Facility Management	1	3	1	2	7	11.48
Total	13	19	9	20	61	100
%Total	21.31	31.15	14.75	32.79	100	

Stakeholder management decision: Asked whether stakeholder management was carried out on the project; 37.7% of the respondents said they carried out stakeholder

management and 62.3% said they did not carry out stakeholder management. Out of the 37% that said they carried out stakeholder management, 91% said no funding was provided on the projects for stakeholder management and 9% said funding was provided but did not say how much or what percentage of the project sum was committed for carrying out stakeholder management. Asked whether stakeholder management responsibility was assigned on the project, 30% said yes and 70% (of those who said they carried out stakeholder management) said no stakeholder management responsibility was assigned on the project.

Stakeholder management dynamism: The respondents were asked to indicate whether or not they noticed any changes in stakeholders' interests/disposition towards the project. The result indicates that 45 representing 73.8% of the respondents said they noticed some changes in stakeholder interests during the project whereas 16 representing 26.2% said they did not notice any change in stakeholder interests. The respondents were also asked to indicate from a list of causes identified from the literature of changes in stakeholder interests during the project. This question was intended to find out the most likely causes of change in stakeholder interests/disposition in projects. The frequency of selection of each of the causes was used for analysing this question. A quick look at the numbers will indicate that the total frequency is more than the number of respondents (61) in the survey; this is because respondents had the opportunity to choose as many causes as applicable to them. Their responses (see Figure 2) indicate that the three main reasons why stakeholders' interests changed are acquisition of information previously not available to them, gaining confidence and trust in the project and change in project mission while loss of confidence in the project team is the least likely reason. Other reasons for change in stakeholders' interests/disposition towards the project provided by the respondents include media influence and when stakeholders get to understand other stakeholder's interests on the project. Stakeholders getting to understand other stakeholders' interests on the project can be said to be the same as acquisition of new information.

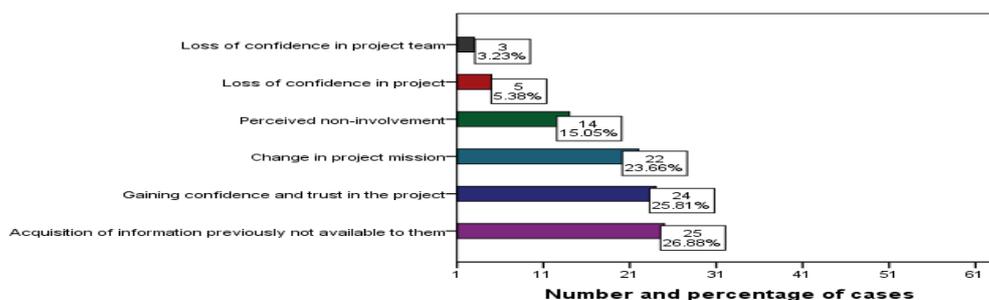


Figure 2 Causes of change in stakeholders' interests

Similarly, the respondents were asked to indicate from a list of means identified from the literature through which they monitored or tracked changes in stakeholders' interests/disposition towards the project and their answers are as shown in Figure 3 with "feedback mechanisms" being the most popular. Furthermore, their answers indicate that the other means of tracking changes in stakeholders' interests/disposition towards the project is through reports during periodic project meetings which some of them referred to as "feedback at meetings", "feedback gained at stakeholder meetings" and "informally during meetings". Some of the respondents reported that they did not monitor change in stakeholder interests/disposition towards the project at all but this is negligible as only two of the respondents shared this experience.

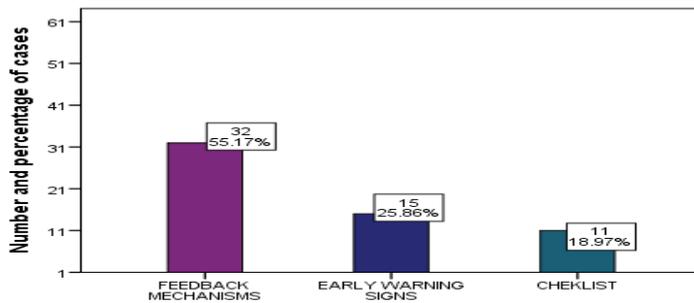


Figure 3 Means of tracking change in stakeholders' interest

Internal stakeholder collaboration: It was asked in the survey whether there is a need for collaboration among internal stakeholders in carrying out stakeholder management in construction projects. The results indicate that there is need for internal stakeholders to collaborate in carrying out stakeholder management in construction projects with 95.1% of the respondents agreeing to this. A further question asked respondents to indicate in a matrix form the internal stakeholders that should be involved in stakeholder management collaboration at the various stages of construction projects. The result obtained from this is presented in Table 2 in which the values represent percentage of respondents that selected the involvement of the respective internal stakeholders at different stages. Based on the results, internal stakeholders to be involved at different stages are indicated in bold revealing that only the client should be involved at all stages of the project with very high frequencies of selection at all the stages. Interestingly, the survey respondents are of the view that all internal stakeholders should be involved at the construction stage. The selections of internal stakeholders to be involved was based on their frequency of selection presented in Table 2 being not less than 50% of the cases involved in the data.

Table 2 Involvement of internal stakeholders in stakeholder management at different stages of construction projects

Internal Stakeholders	Inception Stage	Design Stage	Construction Stage	Operation Stage
Designer Organisation	96.7	85.0	71.7	15.0
Project Management Organisation	61.7	85.0	85.0	30.0
Project Consultant	73.3	78.3	71.7	13.3
Project QS	66.7	88.3	85.0	8.3
Contract Administrator	28.3	41.7	83.3	28.3
Main Contractor	15.0	66.7	85.0	26.7
Facility Management Organisation	40.0	76.7	58.3	83.3
Client	98.3	85.0	85.0	85.0

Stakeholder management leadership/coordination: Respondents were asked to indicate in a matrix form which internal stakeholders should be responsible for leading stakeholder management at the various stages of construction projects. The percentage frequencies of their responses are presented in Table 3. From these results the responsibilities for leading and coordinating stakeholder management in construction projects are indicated in bold. The final decision was based on the internal stakeholders with the highest percentage frequency of selection by the respondents to lead stakeholder management at the various stages in construction projects. Olander and Landin (2008) argued that “if there is no clear strategy for how to manage and

involve stakeholders in the project implementation process, the project manager will end up in a rearguard action, fending off claims from stakeholders". The suggestion that the project manager is responsible for stakeholder management is arguable; as this will depend substantially on the procurement route being used, the stage at which the project is, whether a deliberate decision is made to carry out stakeholder management and other project characteristics.

Table 3 Responsibility for leading stakeholder management at different stages of construction projects

	Inception Stage	Design Stage	Construction Stage	Operation Stage
Internal Stakeholders				
Designer Organisation	18.3	63.3	5.0	5.0
Project Management Organisation	28.3	33.3	80.0	18.3
Project Consultant	20.0	5.0	1.7	3.3
Project QS	6.7	1.7	3.3	3.3
Contract Administrator	3.3	6.7	15.0	6.7
Main Contractor	0.0	1.7	21.7	3.3
Facility Management Organisation	0.0	0.0	0.0	65.0
Client	73.3	25.0	20.0	31.7

Stakeholder engagement techniques: Six stakeholder management/engagement techniques were identified from literature review and included in the questionnaire in which respondents were asked to indicate their awareness of and rate the effectiveness of these techniques in stakeholder engagement/management in construction projects. They were asked to rate on a five point Likert scale and the mean ratings of the techniques by the respondents were used to analyse the levels of awareness and effectiveness of the techniques as shown in Table 4. The respondents were asked to rate the effectiveness of the techniques only if they are aware of them, hence their ratings represent both level of awareness and level of effectiveness. The result (Table 4) reveals that the respondents are more aware of "public hearing" with mean rating of 3.93 and think it is the most effective technique for engaging construction project stakeholders. This was closely followed by "design charrette" with mean rating of 3.90. Conversely, "Contingent Valuation Method" with mean rating of 3.38 is the least popular stakeholder engagement technique.

Table 4 Rating of stakeholder engagement/management techniques

Stakeholder Engagement Techniques	Mean	Rank
Public Hearing	3.93	1
Design Charrette	3.90	2
Strategic Needs Analysis	3.85	3
Delphi Technique	3.79	4
Stakeholder Cycle	3.46	5
Contingent Valuation Method	3.38	6

Notes: a: 1= Strongly Disagree and 5= Strongly Agree.

DISCUSSION OF RESULTS

From the results presented in the previous section, the most important reason for which stakeholders' interests/disposition towards the project change is when they acquire new information about the project. New information can cause stakeholders to

change from being supportive to opposing stakeholders or otherwise depending on the effect of the new information they have just acquired. The next important reason for change in the interests/disposition of stakeholders towards the project is when the stakeholders gain confidence in the project and project management team. The effect of this reason is positive but it can be dangerous if the level of confidence is not safeguarded and it is lost. Another reason is change in project mission outside the expectations and knowledge of some key stakeholders can cause them to oppose the project and obstruct/delay its progress. This points to the need for stakeholders to be involved in defining project mission at the early stage and in refining it at later stages when the need arise. The results also suggest that when stakeholders are not involved in project decision making, their interest/disposition towards the project can change. The implication of these findings is that project management team should make sure all relevant stakeholders are involved in defining the project mission and both positive and negative impacts of project objectives are communicated to stakeholders.

Regarding monitoring and tracking the changes of stakeholders' interests/disposition towards the project, the results revealed that the most popular and effective means of monitoring and tracking the changes in stakeholders' interests/disposition towards the project is through "*feedback mechanism*". This indicates the need for project management team to put in place feedback mechanisms when undertaking stakeholder management in construction projects.

About which internal stakeholders should be involved in stakeholder collaboration at the various stages of construction projects, the findings presented in Table 2 show that: the design organisation, project management organisation, project consultant, quantity surveyor and the client should be involved at the inception stage; all the internal stakeholders except the contract administrator should be involved at the design stage; all the internal stakeholders should be involved at the construction stage; and only the facility management organisation and client should be involved at the operation stage.

The responsibility of leading and coordinating stakeholder management at different stages presented in Table 3 indicates that the client organisation would appoint a suitable representative to lead/coordinate stakeholder management at the inception stage. In the case of an inexperienced individual client they would need to employ the services of a suitable internal stakeholder. Similarly, the design organisation would appoint a suitable member of staff to lead/coordinate stakeholder management at the design stage as would the project and facility management organisations at the construction and operation stages respectively. The results also suggest that the client and facility management organisation are the only internal stakeholders that can practically be available at the operation stage. The results presented in Table 4 suggest that "*public hearing*" and "*design charrette*" are the most popular and effective stakeholder engagement/engagement techniques. "*Strategic needs analysis*" and "*Delphi technique*" are also considered effective. This means that the choice of which techniques to use would depend on the prevailing circumstances and knowledge of the techniques by the project team. It could also depend on their reason for engaging the stakeholders and the stage of project at which the stakeholders are engaged.

CONCLUSIONS AND FURTHER RESEARCH

This aim of the research presented in this paper was to investigate the current practice of stakeholder management in construction projects in UK. From the results discussed in the foregoing section, the following conclusions can be made:

- Stakeholder management is yet to be fully embraced as a deliberate strategy in the management of construction projects in the UK.
- The challenge for embracing stakeholder management could be said to be the inability of firm or client to set aside some funds to support stakeholder management process.
- There is need for firms to assign the responsibilities for stakeholder management to specific professionals in addition to deciding to undertake stakeholder management in construction projects.
- There is a strong need for internal stakeholders to collaborate in undertaking stakeholder management in construction projects.
- Construction professionals perceive dynamics in stakeholder position as important and gaining new information is explanatory for that, but not loss of confidence in the project team.
- Public hearings and design charrettes are considered the most important stakeholder engagement instruments.
- There is need for a policy driven support for stakeholder management to be carried out in construction projects.

Further research will be carried out to identify the main components of the framework for stakeholder management in construction projects to be developed. This will involve analysing the critical success factors for stakeholder management in construction projects and the effects of procurement routes on stakeholder management process. The results presented in this paper will also be incorporated into the framework.

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