

An Investigation on the Stakeholders of Construction Projects in Dubai and Adjacent Regions

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Abstract. Construction stakeholder management is a relatively new concept in Dubai and adjacent regions with a scarcity of research addressing the subject. This paper underpins the construction professionals' existing stakeholder management knowledge by outlining the influence sphere of project stakeholder and naming project's salient stakeholder. Stakeholder theory, definition and identification literature are reviewed to form and online survey questionnaire that was mailed to construction professionals. Data collected was statistically analyzed. Survey analysis uncovered that clients possess high power to affect decision-making sphere extremely. Salient stakeholder is defined using the attributes; Power, Legitimacy, and urgency. Results showed that the salient stakeholder is the project manager (PM). Client's satisfaction must be maintained during the PLC. The paradoxical finding is that client is perceived as the powerful stakeholder, they are not the party who imposes maximum influence on project spheres; it is the PM. Construction professionals can practically use research results in a better stakeholder management implementation. The research is limited to Dubai and the adjacent regions. Further empirical research testing the relationship between stakeholder's power attribute and influence sphere is due for a better understanding of their interactions.

Keywords: Dubai Construction, Project Influence Sphere, Salient Stakeholder, Stakeholder Management, Project Life Cycle (PLC).

1. Introduction

The concept of stakeholder management is becoming more and more important and strengthened in the industries. This is particularly relevant to the construction industry as construction projects are managed and conducted by a few major stakeholders. In addition, scarcity of construction stakeholder management research papers in Dubai and adjacent regions rationalized the need to highlight the concept of stakeholders' management. To understand the concept of stakeholder management in business will help establish the theoretical backgrounds of stakeholders in construction. In this context, a business *'... is about how customers, suppliers, employees, financiers (stockholders, bondholders, banks, and so on), communities, and managers interact and create value'* [1]. In construction, this involves adding value/profit to each stakeholder throughout the Project Life Cycle (PLC) in line with construction organization objectives. However, maximizing values / profits is a secondary business intention because of three reasons: First, the prevailing factor is the good achievement for society rather than value added to shareholders only. Second, a new managerial way to deal with shareholders is needed due to the business dynamics. Third, existence of other valid business objectives [2]. Accordingly, the construction industry is no exception in respect to these reasons. Similarly, in the construction industry, projects are the investment that generates profit or loss. Projects became complex as it hold together parties obliged to closely interact with others striving to achieve its own interests.

The increasing level of fragmentation in construction projects fostered its complexity; raising the significance of rigid coordination that assures high level of integration amongst stakeholders (demand and supply sides) if the project to be successfully completed. In addition, close interaction with suppliers necessitates information flow, co-operation, openness and transparency [3]. Those are becoming more prominent PM skills are needed to manage stakeholders' relationships. However, the traditional project's success criteria, namely time, cost, and quality cannot enchant stakeholders' unique interests, and their ever-increasing demands. Therefore, those criteria are no longer sufficient to measure project success as powerful stakeholders influence decision-making at different stages of the PLC.

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This paper aims to advocate the realization of stakeholders' management concepts in construction projects in Dubai and adjacent region. Moreover, its objectives are:

- To review and define the concept of stakeholders in construction projects
- To define stakeholder's influence spheres and attributes
- To name salient stakeholder(s) in construction projects

2. The Literature Review

2.1. Stakeholders Theory

Stakeholder theory urges managers to prioritize the official interests of individuals and groups that are affecting or being affected by their organization's activities [4, 5]. Beside that the theory unfolds current circumstances and it possesses a managerial aspect due to its ability to forecast cause-effect links and stakeholders can be identified despite their fluctuating contribution in business activities and decisions taken at any stage[4]. Cause-effect links are explicit in construction projects during PLC. Inattention of certain stakeholders at the design stage could cause conflicts during construction; this will possibly lead to financial loss due to time delay variation claim raised by main contractor. This link between attention to stakeholder's interests and related performance is core aspect of stakeholder theory from a managerial perspective as it strengthens manager's role in achieving corporate aim(s).

2.2. Stakeholder Definition and Identification

As per ref [5], *'...a stakeholder in an organization is any group or individual who can affect or is affected by achieving the organization's objectives'*. Nevertheless, a broad stakeholder definition was presented by Ref.[6]; who defined stakeholders as parties contributing to and/or being affected by a decision making process. However, other identifications went deeper, *'Stakeholders are identified by their interests in the corporation, whether the corporation has any corresponding functional interest in them.'*[4]. Here the functional interest of a corporation is with internal stakeholder as much as the external one. Furthermore, the corresponding functional interests are manifest on financial or social objectives of a company or an individual. However, the quality and accuracy of stakeholder's definition is vital for a satisfactory analysis process where relevant stakeholders are identified [7]. Managers need to remember that organizations regularly set objective as a part of their strategic planning where stakeholders are identified.

The stakeholder identification is one of the stakeholder theory shortcomings [8].*'.. stakeholder identification and salience based on stakeholders possessing one or more of three relationship attributes: power, legitimacy, and urgency.'*[9]. To assure timely verification of main stakeholders during the life cycle of any endeavour, project managers needs to categories significant stakeholders who governs the project's outcome [10]. This appreciates the role of power as a factor to rank stakeholders' significance. Usually power and legitimacy coexists. For example, a powerful stakeholder can compel its legitimacy on decisions and in particular financial ones such as the case of a price variation order. However, urgency is associated with the flow of site works.

Researchers noted the need to differentiate between stakeholder's identification and categorization. While the identification leads to the detection of stakeholders, categorizing them is by labelling each one. Stakeholders can be categorized as primary or secondary[11]. For example, owners, employees, customers, and suppliers are primary stakeholders; and secondary stakeholders include but not limited to non-governmental organizations, activists, communities, and governments; and general public and institutional forces [12]. Primary stakeholders interact on daily basis over major activities, hence enabling them to impose direct influence on the decision-making process. On the other hand, secondary stakeholder interaction with the project is unexpected depending on the project's stage. Construction primary stakeholders impose direct effect while secondary stakeholders impose indirect effect on the project.

2.3. Salient Stakeholders

'..salience refers to the degree to which managers give priority to competing stakeholder claims'[13]. Managers name salient stakeholders based on a specific attributes; stakeholders that needs more attention from managers; Stakeholder's salience level is related to the number of attributed (power, legitimacy and urgency) is possess [14]. PM focus on gaining better knowledge on projects that depends on local practices and salient external stakeholders [15]. However, projects could be more dependent on internal stakeholders such as the clients. And in some cases PM categorized secondary stakeholders as salient at investment study

stage [16]. Saliency of stakeholders relates to the firm's culture. For example, in a moralist firm a stakeholder with high saliency combines both legitimacy and urgency [17].

The following section of this research illustrates construction stakeholder concepts within the context of Dubai construction industry.

2.4. Stakeholders in Construction Projects

Before we proceed, we present our definition of Dubai construction project's stakeholder in this research paper as the influential participating party who engages with the project throughout its life cycle to achieve its aims. The extent to which the project objectives and the stakeholders' aims are aligned creates possible uncertainties, such as schedule deviation and conflicting stakeholders' interests that project managers need not to underestimate. Construction stakeholders can be categorized as primary and secondary stakeholders. Primary stakeholders include client, consultant, and PM who are considered as directly connected to the project. While Secondary stakeholders include investors, suppliers, employees, sub-contractors, third party, banks, governmental authorities, pressure groups, trade associations, and communities. Those have indirect connection to the project.

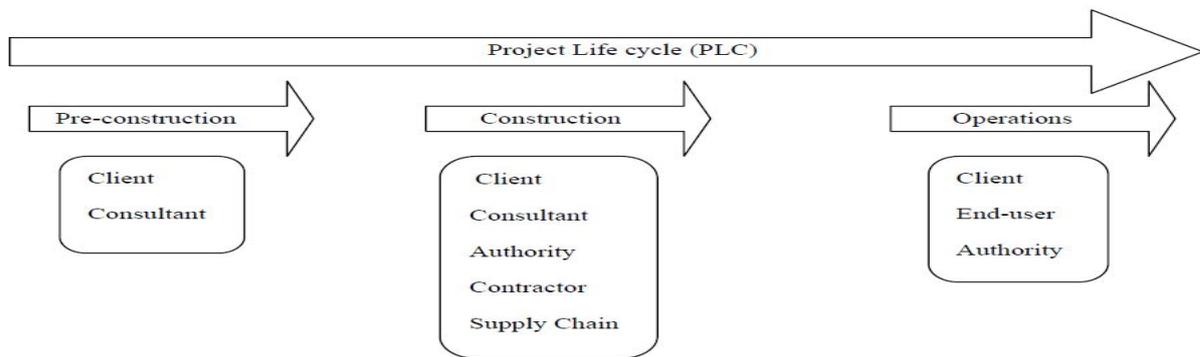


Fig. 1. Influential stakeholders during PLC

3. The Survey

A survey questionnaire was designed using Key Survey (online survey tool) based on a pilot study and the literature reviewed. The questionnaire was emailed to potential participants holding different posts in the construction industry. These questions are of three categories. First, the general information and stakeholder type section. Second, the stakeholder effect on the project aspects. Third, power/influence matrix and the salient stakeholder attributes. The survey was forwarded to construction professionals by direct email to collect their views that forms the research's data. The survey lasted 34 days; construction professionals from Dubai, and adjacent region successfully completed 77 surveys; the response rate was 28.7%. Reasons for this response rate are due to but not limited to the followings: The author has 14 years working experience in the construction industry in the UAE. Key Survey was set to send a reminder after one week and another reminder after two weeks from invitation date. The author called some participants to make sure that they are not having difficulties with the questions and offered a copy of the survey results to participants completing the survey. An informative method in addressing survey results discussed in the following section as data collected was subject to statistical analysis.

4. Analysis of the Survey

The survey results showed that 29.9% of the respondents were consultants and 23.4% working as client representatives. Projects under construction accounted for 55.8% and 87% of respondents worked on building projects. Stakeholders with direct influence of the project are described in the survey as 'Primary'. They were found to be the client and the project manager with 89.6% and 85.7% of the respondents respectively. However, stakeholders with indirect influence of the project are described as 'Secondary'. They were found to be the trade associations and the pressure groups with 92.2% and 84.4% of the respondents respectively.

4.1. Stakeholder's Influence on Project Sphere

Table 1 summarizes respondents' average ratings (Survey questions 9 to 14) of how they perceive the effects of thirteen stakeholders on six main project's spheres; namely, decision-making, time, cost, quality,

safety and environmental management sphere. The rating scale comprises five levels labelled 1-5; 1=Extremely weak, 2=Weak, 3=Neutral, 4=Strong and 5=Extremely strong. Taking in consideration the total effect of each stakeholder on project's sphere, PMs ranked first followed by clients in second position while consultants held third position. Participants acquire deeper understanding on formal relationships; yet the difference between formal and informal relationships should be recognized[18]. Therefore, what really counts here is the project manager's approach to deal with its stakeholders in the context of their individual relationships within areas of influence, and taking in consideration the project's dependence on internal and/or external stakeholders.

TABLE 1: Stakeholders ranking based on their highest influence on project spheres

	Stakeholder rank	Decision making	Time	Cost	Quality	Safety	Environment
PM	1	4	5	5	5	5	5
Client	2	5	5	5	5	3	5
Consultant	3	4	4	4	5	5	5
Works contractors	4	3	4	4	4	4	4
Employee	5	3	4	3	4	4	4
Governmental authorities	6	4	3	3	3	4	4
Suppliers	7	3	4	3	4	3	3
Investors	8	4	3	3	3	3	3
Third party	9	3	3	3	4	3	3
Financial firms(Banks)	10	4	3	3	3	3	3
Pressure groups	11	3	3	3	3	3	3
Trade associations	11	3	3	3	3	3	3
Communities	11	3	3	3	3	3	3

4.2. Stakeholder's Power/Interest Matrix

Clients and sub-contractors are top rated by the participants on the power/interest matrix (see Table 2). Results revealed that clients are important and their aims should be achieved. On the other hand for a contradictory result of which stakeholders that should only be informed; financial firms and governmental authorities.

TABLE 2: Survey question 15; Please select stakeholder type based on power/interest matrix.

1. Keep them satisfied	2. Manage them closely	3. Monitor them	4. Keep them informed
Client 67.5%	Sub-contractor 45.5%	Supplier 53.2%	Financial firms(Banks) & Governmental authorities 51.9%

4.3. Salient Stakeholder Attributes

Participants were asked to assign only one of Michaels's attributes (Power, Legitimacy, and Urgency) to each stakeholder. The results gave an idea on the most significant stakeholders that counts in terms against each attribute (see Table 3). These stakeholders are the client, sub-contractor, supplier, financial firms, and third party. Clients are core stakeholders as 67.5% of respondents feel the need to adhere to client's wish and keep him satisfied (see Table 2). In additions, 81.8% of respondents believed that clients possess the power attribute. For legitimacy and urgency, third parties & communities and sub-contractors accounted for 55.8% respectively.

TABLE 3: Survey question 16; Please select the attribute relevant to each stakeholder.

1. Power	2. Legitimacy	3. Urgency
Client	Third party & Communities	Sub-contractors
81.8%	55.8%	55.8%

5. Discussion

This paper presents basic insights on the construction stakeholder management in the Dubai and the region's construction industry. There was a consensus amongst consultants that clients have an extremely strong effect on decision-making. This might be due to the stakeholder's type of involvement whether be it active or passive [7]. This is supported by the results of question 16 where a high percentage of replies rated clients as powerful. This helps in project success as it exhibits explicit declaration of client's factors[19]. As a support for this result, practical experience reveals close relationship between consultants and client throughout the PLC results in a better decision-making process.

This research showed the influence sphere for each stakeholder. While communities are rated with lowest influence on project spheres, PM ranked as main influential stakeholder (see Table 1). This determines who really counts hence enabling PMs to plan the way of approaching each stakeholder on case-by-case basis.

Calling the stakeholder's categorization presented by [11] as primary and secondary; noticeably the sub-contractors who are perceived as primary are being advised to be closely managed and they have highest urgency attribute. PM's ultimate aim is a successful project by the end of the PLC. To meet that aim, PMs must consider stakeholders' interactions to achieve a comprehensive approach while setting their management strategy early on the PLC. Survey showed that PM viewed client possessing extreme influence on time management, while clients viewed consultants of strong influence on time management. However, construction professionals can set policies and strategies to deal with two groups of stakeholders based on stakeholder sphere of influence (see Table 3). Although PM has maximum impact on project spheres, yet PM to keep powerful clients satisfied especially when the decision making process is being influenced. Stakeholder management strategies that PM can adopt on each sphere can influence other stakeholders during the PLC.

The salient stakeholder in a construction project could be the core stakeholder's management concept. That is because of its responsibility for defining project success due to the influence it has on project's decision-making power. Power is momentary and stakeholders show various power levels on different projects[20]. So these decisions affect the project's time performance differently throughout the PLC. Consequently, the accurate determination of salient stakeholder might help PMs minimizing time overruns by the practical realisation and addressing the relationships between the salient stakeholder and others onboard.

6. Conclusions

Notably the limited research on stakeholder management in this region formed this research basis. To put the available stakeholder management knowledge in context, the author presented his definition of a stakeholder based on stakeholder theory that emphasizes the prioritization of stakeholder's interest(s). The reciprocal interactions between the project and its stakeholders and in particular the cause-effect ones must be deeply considered by PMs. The definition of stakeholder was based on the effect that a decision making process causes to a stakeholder. However, the categorization is labelling each stakeholder. Unlike secondary stakeholders, the primary ones directly affect the project. Salient stakeholder is most probably to be a primary one. The power, legitimacy, and urgency attributes that a stakeholder holds are its salience determining factors. A survey collected the participants' views on stakeholders influence on six spheres; namely, decision making, time, cost quality, safety and environment. The project's dependence on internal or external stakeholder need not be ignored. PM, client and consultants were found to have maximum influence on project spheres. Therefore, they can be grouped during strategic planning early on PLC. The power/interest matrix showed that clients must always be satisfied. That can be achieved by the realization of their interests.

Finally survey revealed that clients possess the power attribute that entitled them to be the construction project's salient stakeholder and as being a primary stakeholder, they directly affect the project especially the decision making process.

To sum up, we present practical implications for Dubai and the adjacent regions construction practitioners as follows:

- Stakeholders might have an impact on six project-related spheres.
- Stakeholders can be divided into two influential sets for ease of strategy building.
- Salient stakeholder is defined using-but not limited to-three attributes; power, legitimacy and urgency
- Stakeholder's salience and prominent influence do not always coincide.
- Assist construction industry professionals in adopting a stakeholder management approach to enhance the success chances of their projects.

Yet regional and methodology limitations do exist. Empirical research results testing via Case studies could reveal better understanding of the link between the stakeholder's power and sphere influence.

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7. References

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