

# **The influence of stakeholders' relationship on project success**

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## **Abstract**

The quality of the relationship between critical stakeholders (client, consultant and contractor), in a typical construction project, influences the progress on the project. If this relationship is impaired, it may lead to disputes of varied degrees; which usually culminate in litigation. The objective of a typical construction project is to strive to improve on the relationship between the stakeholders through effective communication, cordial information sharing and timely response to enquiries. When this is done, the stakeholders at variance with others are politely educated and re-aligned towards achieving the project's objectives. The effective management of relationships in a construction project can be achieved through the contextual use of the Johari's model. The action research approach was adopted, examining the actions of each stakeholder for a longitudinal period of twelve months in the life of a construction project. The findings revealed that the contractor's actions, in many instances, displayed acts of ignorance, while the consultants were seen to be economical with details; these are referred to, in the Johari's model, as acting in the blind area and façade respectively. The use of the Johari's model has helped in ameliorating disputes between stakeholders; improved on in their relationship and facilitating progress in the construction project.

**Keywords:** Construction project, Dispute, Information sharing, Relationship, Stakeholders

## **1. Introduction**

The relationship between the different stakeholders in the construction project, the quality and mode of communication, response to enquiries and the general leadership style are some latent causes of disaffection which eventually leads to disputes of different magnitude. The method(s) of resolving the disputes influences the effect on the relationship between the different stakeholders and the progress of the construction project. The disputes may be simple, which can be resolved through normal site procedures or complex, requiring arbitration or litigation (Lloyd-

Walker, *et al.*, 2014; Ogunsami, 2015). Furthermore, the contract procurement systems used for the execution of any project equally play a significant role in the process of dispute resolution. In the traditional system, where the leading consultant doubles as the project manager, if the emerging dispute affects his office, the matter may not be handled objectively; it will then drag on and on sometimes requiring the service of an arbitrator and in extreme cases, litigation. However, in the relationship-based procurement system, a dispute resolution procedure is integral to the general agreement, with a clause stating, 'no dispute will lead to litigation' (Jefferies *et al.*, 2014, Lloyd-Walker, *et al.*, 2014). It is imperative therefore, to adopt principles or a leadership style which can foster cordial relationships between stakeholders in a construction project with the aim of realizing the goals and objectives of the project. In this regard, the Johari window or model has been used successfully as tool for effective management of relationships within a typical project team, and can be adapted for use in the construction project environment. The strength of this model lies in the use of the soft skill of effective communication (Azim *et al.*, 2010), cordial information sharing and timely response to enquiries; thus ameliorating the incidence of disputes, facilitates polite education of the erring stakeholder, re-gain their confidence and re-alignment towards achieving the project objectives.

This paper is an excerpt of an ongoing research on how the principles of the Johari's window are being used in the management of the relationship between the stakeholders in a construction project in a higher education institution in Nigeria, with particular attention to one of the critical contractors. The Johari's model has been very helpful in managing sour relationships between stakeholders, reduced the associated challenges of arbitration and litigation; thus ensuring remarkable progress in the project. The structure of this paper progresses from literature review which explores the role of stakeholders in a construction project and the use of the Johari's model as tool for resolution of dispute in construction sites. The third section explains the research methodology, which hinges on action research. The fourth section provides information on the research finding, demonstrating how the Johari's model was employed. The final section drew conclusions from the finding and made appropriate recommendations.

## **2. Literature review**

Literature review provides broad based but structured information, allowing researchers to harness existing information, models and methodologies to support new endeavours. The literature reviewed here provides general information on the role of stakeholders in the successful execution of construction projects and the Johari's model, as a tool for managing relationships.

### **2.1 The role of construction project stakeholders on project success**

The stakeholders in a typical construction project include the end-users, the customers, the designers, the contractors, and the maintenance team (Aapaoja and Haapasalo, 2014). Others include the client, project managers, subcontractors, suppliers, sponsor or funding bodies, local community members, non-governmental organizations (NGO), media, lobbying organisations, and government agencies (Eyiah-Botwe *et al.*, 2014). In this research, the stakeholders of interest are the client and the project execution team (consultants and contractors). Each stakeholder has its role and responsibilities as well as requirements or interest to be satisfied. Managing these diverse interests, sometimes, creates conflict which requires tact and pragmatism in managing the relationship with the aim of achieving the project objectives. Furthermore, construction stakeholders can be classified into two broad categories, namely primary and secondary stakeholders. The primary stakeholders are those who have a contractual relationship with the client and the secondary stakeholders do not have a strong and binding relationship with the client. The primary stakeholders play key roles in project execution and their effective delivery (Wang and Huang, 2006; Eyiah-Botwe *et al.*, 2014).

Project sponsors, who sometimes double as the client, adopt different methods to secure the services of the project execution team, primarily the consultants. The client may adopt the concept of using an independent project manager (not one of the consultants engaged in the project) or use the lead consultant (among other consultants) to double as the project manager, to coordinate the project execution exercise. Either concept has its advantages and disadvantages. Two questions are upper most in the mind of the client when selecting a project manager and the associated consultants to manage their project. The questions are, will the manager and the consultants focus on the relevant success criteria of the project, and do they have the necessary skills and commitment to implement the appropriate success factors (Muller and Turner, 2007)? Thus, the clients want a project manager and consultants not just with appropriate competencies but also with the appropriate focus on their work (Muller and Turner, 2007a). Their selection process follows a similar procedure to the one used for the selection of the contractors.

The contractor is the most visible active force, among the project execution team, whose action or otherwise is so significant in the effective delivery of the construct project. Therefore, the selection of this group of actors requires

due diligence. Contractor selection involves multi-faceted decision-making process with multiple selection criteria. In practice, the contractor selection process follows a two-stage process, known as pre-qualification and post-qualification stages (Jafari, 2013). Generally, the pre-qualification process involves inviting a large number of contractors to submit the information required by the procuring client, in order to identify an array of eligible contractors, which is required for the post-qualification phase (Jafari, 2013). The information in the pre-qualification document should be as comprehensive as possible; examination of the documents submitted by each contractor should be complemented with physical verifications. The category or categories of contractors to be invited for pre-qualification should be specified, so that the shortlisted contractors will be approximately of equal capacity and capability. Some of the information required should include essential attributes and key factors (Doloi, 2009; Alzahrani and Emsley, 2013), as summarised in Table 1.

Table 1: Essential attributes and key factors

S/No	Attributes	Key factors
1	Financial attributes	Up to date audited account for not less than three years, showing history of cash turnover, credit history and cash flow.
2	Management and technical attributes	Staff qualification, quality, quantity and experience of technical personnel; Knowledge of suitable construction method(s) for the project under consideration; suitable work programme or project time line.
3	Past experience and performance attributes	List and size of completed projects in the last five years, with certificates of practical completion; project time and cost overrun, if any, with reasons; evidence of uncompleted projects with reasons; evidence of conflict, disputes or litigation with reasons; experience of construction activities in the region of the proposed project.

The end result of the pre-qualification stage is the shortlist of suitable contractors. In the second stage – the post-qualification stage – the shortlisted contractors are invited to tender for the construction project. The submission of each contractor is examined in order to establish their technical competency, balanced pricing and workable schedule or project timeline; these form the bases for selecting the most suitable contractor(s), and not necessarily adopting the lowest bidder (Jafari, 2013; Deep, *et al.*, 2017).

## 2.2 The model of Johari’s window

The Johari’s window or model was developed in 1955 by the twin researcher Joseph Luft and Harrington Ingham, shortened to the acronym Johari derived from their first names (Saxena, 2015). The tool has been used extensively in managing relationship between persons working in a team within any organisation. The model encourages improvement in the soft skill of effective communication (Azim *et al.*, 2010) and interpersonal relationship necessary for building the environment of creative and collaborative learning (Saxena, 2015). The model is represented by four panes of a window or four quadrants (Cipriani, 2004; Saxena, 2015), as shown in figure 1.

The first quadrant is called ‘the arena’, or an area of free activities where everybody in the team has sufficient information about the others and the objectives of the team. The second quadrant, known as the ‘blind area’ is an area, where specific stakeholders in the team are oblivious of some operational details in the team causing such stakeholder(s) to act at variance with other team members. In the third quadrant, known as ‘façade’, certain stakeholder(s) craftily become economical with truths or details. The fourth quadrant is a complex zone, which is styled area of unknown activities. The model is applied by reading the intersection of the vertical components with the horizontal components in each quadrant. The first quadrant (known to self vs. known to others) ‘the arena’, or an area of free activities, is where everybody in the team know sufficient information about the individual and the individual in the group knows sufficient information about other members of the group, as well as the objectives of the project being executed by the team (Luft and Ingham, 1961; Saxena, 2015). On the construction project management setting, this quadrant represents “the construction project” where all stakeholders, coming together begin to learn about each other stakeholders, the project, the role of each stakeholder and the expected project outcome(s). As the project progresses, under the atmosphere of collaborative learning, the individuals in the team become more open to share information or receive constructive feedbacks from other members of the team (Luft and Ingham, 1961; Saxena, 2015).

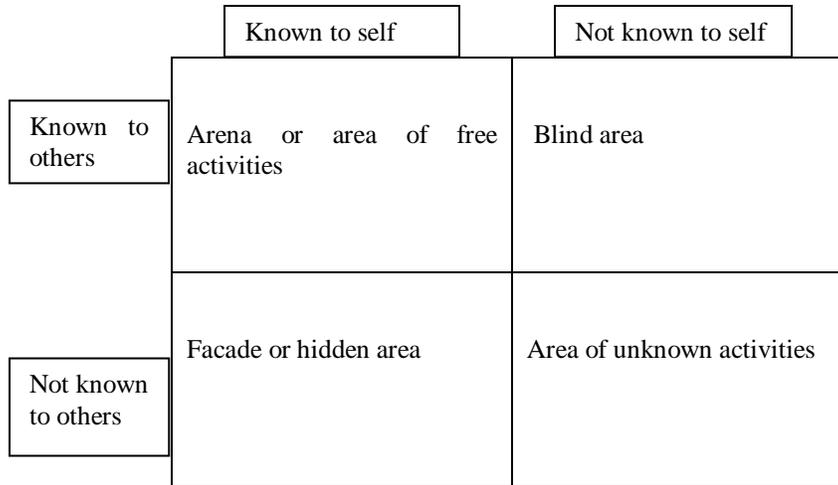


Figure 1: The Johari window model

The second quadrant, (not known to self vs. known to others), is known as the ‘blind area’, where a specific stakeholder in the team is oblivious to some latent issues influencing his/her action but these issues are known to other members of the team (Luft and Ingham, 1961; Saxena, 2015). During construction, the majority of contractors raise issues which they consider as their rights. In most cases, such rights are actually a demonstration of ignorance when their attention is drawn to the terms in the conditions of contract. In real life, the actors in the second quadrant do not easily shift ground because, there seems to be some good and logical reasons, probably of psychological nature, to remain blind to them, ideals, and feelings about others, not minding the objective feedbacks from other team members (Cipriani, 2004). In the third quadrant, (known to self vs. not known to others) is known as ‘façade’. Here, certain member(s) of the team deliberately or with hidden motives become economical with truth or details (Luft and Ingham, 1961; Saxena, 2015). The nature of the ‘façade’ presented by each stakeholder, in this quadrant, becomes obvious during the project execution in the form of frequent enquiries, uncomplimentary correspondences, failures in the execution of the different aspects of the project at hand and through dispute adjudications (Newstrom and Rubenfield, 1983). The fourth quadrant (not known to self vs. not known to others) is a complex zone, where neither the individual nor other members of the team know what will eventually crop up in any phase of the project; this area is the styled area of unknown activities. In the construction project scenario, this is the area of ‘complexities and ambiguities’ (Newstrom and Rubenfield, 1983; Cipriani, 2004; Walker *et al.*, 2017).

The objective of a typical construction project scenario is to expand the first quadrant simultaneously in both the horizontal and vertical directions (Cipriani, 2004; Saxena, 2015). The issues which precipitate into dispute in construction projects arises from the way the different stakeholders operate within the second and third quadrants. Arbitration and litigation can be avoided, or reduced to the barest minimum, through the contextual use of the model of the Johari’s window, depending on the commitments of all stakeholders to the art of effective communication, information sharing and objective receipt of honest feedbacks from other stakeholders. The successes achieved in effective management of stakeholders’ relationships are influenced by the leadership style and emotional intelligence of the project manager or the project coordinator, selected from the client organisation or among the consultants (Potter *et al.*, 2018).

### 3: Research method

The research being reported is part of an ongoing exercise, which focuses on the actions and activities of the different stakeholders in a construction project in a higher education institution in Nigeria. In order to effectively study the interplay of the actions and activities of the different stakeholders and their effects on the relationship between the different stakeholders as well as the progress in the construction project, the action research approach was adopted (Yin, 2014). This enables the collation of information from the different stakeholders in a continuous horizontal period of twelve months, in the life of the project, between March 2017 and February 2018. The data was collected through interviews and examination of the correspondences between the respective parties; especially between the most critical contractor and the consultants on the one hand and between the contractor and the client on the other hand, as well as minutes of site and special meetings. Another instrument for data collection was the

technical sessions. The technical sessions were meetings scheduled purposively to address specific issues infringing on the smooth execution of the project, which are not convenient to be discussed in a normal site meeting. The sampled population for this research was chosen purposively (Franklin and Hart, 2007) based on the role each stakeholder plays in the construction project. They included the client technical representative who also served as the coordinator of the project execution team (PET), the principals of the consulting firms (Architect, Civil/Structural Engineers, Mechanical and Electrical Engineers, and the Quantity Surveyor), as well as the project engineer/managers of the contractor. The subject of each technical session depended on the dispute declared by the contractor. Information obtained from each cluster of stakeholders was compared with similar information from other relevant stakeholders, by adopting the principles of triangulation, in order to arrive at suitable conclusions (Love *et al.*, 2002; Turner *et al.*, 2015).

#### **4. Findings and discussion**

This section provides brief information on the background of the project, the relationship between the stakeholders and their effects on the project delivery. Sections 4.2 to 4.2.3 provides information on how the principles of the Johari's model was used in managing the relationship between the different stakeholders, the results and attendant effects on the progress recorded so far in the project.

##### **4.1 Background of the project**

The capital project under reference is an academic complex designed to host the faculty of Social Sciences. The mega project is a two-storey high building; the construction phase was sub-divided into five smaller lots, for ease of construction and timely delivery. The project was procured through the traditional procurement system. Lots 1&3, used for the illustration of the Johari's process for this research, were awarded to the same contractor and Lots 2, 4 and 5 awarded to separate contractors. Construction works started in March 2012 and achieved differential levels of performance in Lots 1&3, as shown in table 2.

Table 2: Performance level in the different lots

<b>The lot</b>	<b>Project execution status at September 2017</b>	<b>Remarks</b>
Lot: 1 Construction of offices, seminar rooms and toilets	45% complete	Contractor declared dispute with client and abandoned the site, however, when work resumed, the project is being managed using the Johari's model
Lot: 3 Construction of offices, seminar rooms and toilets	35% complete	

The service of external consultants in Architecture, Civil/Structural Engineering, Mechanical and Electrical Engineering as well as Quantity Surveying was equally procured. The consultant architect also doubled as the project manager. The in-house technical personnel, known as project execution team (PET), provide the day to day or residency supervision.

##### **4.2 Managing stakeholders' relationship using the Johari's model**

The combination of managing the effects of conflicting instructions, incomplete working drawings, variations and inflation as well as the not so friendly disposition of the contractor handling Lots 1&3 have negatively affected the relationship of this contractor with all the other project stakeholders and in turn retarded the progress in the execution of the project. The first signal of major relational problem was when this contractor declared dispute with the client and consultant and expressed their desire to withdraw from the project, in a communication from its legal representative dated the 14<sup>th</sup> November 2013. Several attempts were made to resolve this dispute, by adopting various levels of arbitration, with little success. The dispute was finally resolved through the intervention of a high-powered government agency on a two-level condition: 1. All items included in the bill of quantities, when executed, should be paid for at the rate in the signed contract plus fluctuation. 2. Any item not reflected in the bill of quantities, when executed, should be paid for at current rates. This suggests that the subsisting contract, its term and conditions were not nullified. Thereafter, the contractor returned to site on March 2017.

This agreement, notwithstanding, the pattern of communication between this contractor and the consultants continued in the same tone. Between March and September 2017, this contractor exchanged several letters with the client and the different consultants on the project and the tone of these letters were not friendly. In order to avoid a repeat of the past, the client representative devised another method of managing the relationship between the stakeholders, by adopting the Johari's model, which encourages discussion and knowledge sharing by conducting technical sessions in order to resolve an emerging problem(s).

#### **4.2.1 Technical session 1**

When the project resumed in March 2017, this contractor complained about the inconsistencies in the revised architectural drawing for Lot 3 which was at variance with the working drawings from the other consultants. Therefore, a technical session was constituted by the client's representative in order to address the issue raised by the contractor.

- a. Consultant architect: in the revised drawing delivered to the contractor, the architect had introduced ramps and additional steps on the first and second floor slabs, which were not compatible with the other segments of the project and the working drawings from the other consultants. The architect explained that their action was informed by the need to allow for the installation of the water reticulation tank on the roof level over the toilet area of Lots 1 & 3. Other consultants at the meeting debunked this explanation, noting that the toilet area in Lots 1 & 3 were at the lowest point in the complex and will be difficult to supply water effectively to other parts of the complex. Furthermore, they (consultants) informed the committee that they had decided earlier to cite the ground and overhead water tanks at the highest point on site to allow for the easy distribution of water by gravity. The architect was then directed to produce the correctly revised drawing and deliver the hard and soft copies to the contractor, the client and the quantity surveyor (QS) within two weeks.
- b. Consultant Mechanical and Electrical Engineer (M&E): Haven resolved that the ground and overhead water tanks should be located at a more suitable site. The M&E Engineer was directed to identify the location on site, provide the size of the water tanks and submit the details to the Structural Engineer in order to design the supporting stanchion.
- c. Structural Engineer: he was directed to conclude the design of the stanchion, package his drawings along with the ones from the M&E Engineer, and deliver a set to the contractor, another to the QS and client, within two weeks.

The outcome of this meeting showed that the architect acted in isolation of the other consultants, creating a type of facade (the third quadrant) (Saxena, 2015). However, through knowledge sharing, the facade of the Architect who elicited multiple complaints from the contractor and held the other consultants aback was resolved paving way for a restored relationship with the other project stakeholders and progress was restored in the execution of the project.

#### **4.2.2 Technical session 2**

While this contractor was preparing his request for valuation, he raised two requests with the client, namely, quick processing and payment for valuation certificates and request for additional funding in the form of material advance. In his estimation, if the valued work is paid for and the additional money for materials is approved, he will be able to execute the project at greater speed in order to fast track delivery. The two issues raised were discussed exhaustively in this technical session, and the attention of the contractor was drawn to the fact that the conditions of contract do not allow the client to grant more than one material advance request on the same project; a condition the contractor had enjoyed at the inception of the project. However, the committee explored other provisions in the conditions of contract and resolved that the contractor should go ahead and process his request for valuation of work done, in addition seek the service of (his) nominated suppliers who can deliver the relevant building material needed for the execution of the project. The QS was directed to inspect, certify the materials when delivered to site and raise an appropriate valuation. Both the regular valuation for work done and the special valuation for material on site were to be processed and paid for by the client within 14 working days. The contractor expressed his satisfaction over the resolutions of the committee.

According to the Johari model, the postulation of the contractor can be seen as his blind area (second quadrant); the other stake holders in the project knew other details in the conditions of the contract that the contractor was not quite familiar with (Saxena, 2015). By adopting the soft skill of effective communication (Azim *et al.*, 2010) and knowledge sharing, it was easy to educate the contractor on his blind area and proffer solutions to his problem of cash flow on the execution of the project, thus winning the confidence of the contractor and thereafter work continued on site smoothly.

### **4.2.3 Technical session 3**

The third technical session became necessary because the contractor disagreed with the valuation report of the QS. The technical (in-house) representatives of the client constituted a technical session with the consultant QS first and then with the QS and the contractor. In the several correspondences between the contractor and the QS, the contractor accused the QS of violating the spirit of the agreement reached with the government agency that mediated in the dispute declared on the project, in that the QS did not apply full fluctuation on the work executed. The contractor, on the other hand, prepared his valuation request with quantities he claimed were the current representation of work done based on revised drawings and instructions from consultants and used current price (assuming full fluctuation).

During the technical session the attention of the contractor was drawn to the terms of the agreement reached with the government agency before they returned to work and the provisions in the conditions of contract, which states as follows:

1. All items included in the bill of quantities, when executed, should be paid for at the rate in the signed contract plus fluctuation.
2. Any item not reflected in the bill of quantities, when executed, should be paid for at current rates.
3. The contractor should provide evidence of increase in prices of goods and services to buttress his claim for fluctuation in order to complement his provision in the schedule of rates in the signed contract.

The QS systematically took the contractor and the committee members through the relevant clauses in the conditions of contract dealing with fluctuation and how they are managed, including the requisite documentation and relating them to the provisions in the schedule of rates in the bill of quantities. The QS stated further that it was not necessary for the contractor to present his request for valuation as if the project was being administered with new conditions of contract (pricing the entire quantities in the request by adopting current prices). As stated in clauses one and two above, the valuation request should be identified as stated in those clauses and used as the information in clause three to buttress the information in clause one. The contractor then understood the sources of his error and promised to address them. It became clear to the contractor that his overt reactions were the product of ignorance which was corrected in the atmosphere of knowledge sharing among stakeholders; this is the strength of the Johari model, a tool for the effective management of relationships in the construction project environment. The committee resolved that the contractor should submit the supporting documents to the QS in order to enable them to compute the fluctuation request and process additional valuation certificates for payment.

The importance of the leadership style and emotional intelligence of the project manager in managing the relationships with other stakeholders in a construction project site cannot be over emphasised; it has an over-arching effect on the relationship between stakeholders and the progress of work on the project (Potter *et al.*, 2018). When the architect had an alternative idea, different from what they had earlier decided, the principle of good leadership suggests that he should have communicated his new idea to his fellow consultants before giving revised drawings to the contractor. The façade of the architect became obvious through the relentless complaints of the contractor and the discussion in the technical sessions. When corrected it restored a cordial relationship among the team members and facilitated progress on the project. Similarly, the majority of the contractor's requests, actions and grievances were as a result of ignorance or his blind areas, which were corrected using the soft skill of interpersonal relationships and effective communication (Azim *et al.*, 2010), politeness, courtesy, dialogue (Newstrom and Rubenfeld, 1983; Cipriani, 2004; Saxena, 2015). According to the principles of the Johari's model, the contractor was advised to avoid reducing every issue into writing, but adopt dialogue first. Only if it becomes necessary then follow the discussion with written communications. The discussions and resolutions during these technical sessions achieved the objectives of the Johari's model, resolving disputes under a friendly atmosphere which facilitates restored relationships and enhances progress at work.

## **5. Conclusion**

Disputes in construction projects are sometimes inevitable, but how they are handled from the early stages determines the effects on the relationship between the different stakeholders and the progress in the construction project. If these disputes are to be reduced to the barest minimum, the process of selecting the project execution team (consultants and contractors) should be followed religiously, without undue interference from the client. The essential attributes and key factors listed in Table 1 should be used to examine prospective project execution team members, especially the contractors. If physical verification of the documents submitted by any contractor confirms that the contractor has submitted a mere list of completed projects without evidence of practical completion certificates or it can be proven that the contractor has a history of time and cost overrun in previous projects or has a disposition of dispute or litigation, such contractor(s) should not be considered. This is because; they have the

potential of repeating what they have done in previous projects again. Furthermore, if any selected contractor fails to keep to its work programme and time schedule in the first 25% of the project, such contractors should be given a written warning and further default(s) within the first 30% of the project, the client may consider terminating the contract relationship, because this contractor may not finish the project within schedule, resulting in time and cost overrun.

In the research reported in this paper, it is not obvious from existing records how the disputes with this contractor were handled at the early stages of this contract that lead to a declaration of intention to determine the contract. Furthermore, it is not certain why the different arbitration processes did not yield the desired result; until the intervention of the high-powered government agency. Nevertheless, one common feature in the relationship between this contractor and the other stakeholders was the frequency of letter writing, no matter how trivial the issue may be. Other stakeholders (the consultants especially) gave fuel for the contractor's action due to slow response and sometimes no response to the contractor's enquiries. However, from May 2017, the in-house technical team of the client's organisation adopted a different approach by mediating between the contractor and the consultants, using the principles in the Johari's model, which gave birth to several 'technical committee sessions'. At the end of each technical committee session, in an atmosphere of effective communication and knowledge sharing, the majority of the issues raised by the contractor were mutually resolved. The other stakeholders, the consultants admitted their shortcomings and took steps to correct them, thus reducing unhealthy strain in interpersonal relationships among stakeholders and resulted in the project progressing steadily.

As shown in this research, the consultant architect doubled as the project manager (PM). This dual role conferred undue power on the PM, sometimes leading the PM to act in isolation of other consultants and be less responsive to the enquiries of the contractor. Therefore, this research recommends the use of the concept of a project manager/project management organisation not from any members of the consultants involved in a construction project in order to reduce the negative incidence of the PM being a judge in its own case, which eventually infringes on the smooth relationships between stakeholders and may retard the progress of the project.

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## **BIOGRAPHY**

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