

Barriers to Partnering Implementation in Nigeria Construction Industry: Perceptions of the Stakeholders

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Abstract

Objectives: This paper examined critical barriers to partnering implementation in Nigeria, as perceived by practitioners. **Methods/Analysis:** the respondents were randomly selected from the lists of registered professionals with FCDA, Abuja and LSDPC, Lagos, in Nigeria who have handled partnering projects before. Questionnaire survey was adopted; data collected through a self-administered questionnaire. The stakeholders considered were clients, contractors and consultants. Analysis was carried out using descriptive statistics, Spearman rank correlation, and t-test. **Findings:** Finding reveals that lack of commitment, lack of trust, and lack of partnering knowledge and procurement acts behind adopted are the significant barriers to partnering implementation in Nigeria. The analysis shows that project administration responses were consistent as revealed by t-test analysis ($t_{tab} < t_{cal}$ and $p < 0.5$) and Spearman rank correlation showed that no significant disagreement on the barriers rankings between contractors, consultant, and client. It concluded that identified barriers are culture related, and one of the ways to mitigate these barriers is through proper education and awareness campaign. There should be effective communication and open channels to improve the trust among the project teams. Cultural change is necessary for flagging up partnering, and these will take care of other issues and problems. **Novelty/Improvements:** Partnering implementation barriers have not empirically studied in Nigeria context, this paper created that awareness, and if recommendations of this paper implemented, future partnering project would perform better.

Keywords: Barrier, Commitment, Partnering, Perception, Procurement, Stakeholders

1. Introduction

The construction project is a risky business and highly competitive in nature. The construction project is operating in an uncondusive environment that is characterized by a lack of trust, lack cooperation, and ineffective communication which responsible for the adversarial relationship among the project teams. This adversarial relationship results into failure to resolve the claim, cost and time overrun, and litigation¹. To tackle these chal-

lenges, the traditional procurement system which is still being in use in most developing countries

today is no longer suitable. Construction industry inefficiency and poor performance signify that traditional procurement methods have failed². An environment that allows for an adversarial relationship to grow jeopardizes the chance of successful projects delivery and encourages poor project outcomes and client dissatisfaction³.

Adversarial relationships and poor performance have characterized Nigeria construction industry; both the

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government and the industry practitioners felt concern about this ugly situation. The focus of practitioners is how to restore the sector efficiency and competitiveness. Previous studies have linked the adversarial relationship and poor performance to the traditional procurement system that is commonly being used in Nigeria construction industry. In⁴ suggested a collaborative system of procurement as the solution to traditionally procured problems of the industry. Among the various forms of collaborative procurement system available the focus of this study is partnering. There is an increasing trend in the usage of partnering as a method of project delivery in the public sector, the success stories of most developed countries on partnering, and experienced the practitioners on partnering projects made it an area of interest of this research.

Partnering as a delivery system made its first appearance in the construction industry in the middle of the 1980s in the US. Since then it continues to be flourishing⁵ and its application had spread to other countries such as Japan, Malaysia, and Australia and so on and it has proved to be successful. Among the benefits of partnering are the significantly better working environment, better cooperation, timely completion, no claims, and increased respect for each other, project team relations, and dispute resolution. Partnering^{2,3,6} is referred to as commitment between two or more organizations or firms to achieve certain business objectives by maximising the effectiveness of each participant's resources⁷. Partnering referred to as project management strategies of enhancing project performance through improved working relationship.

Despite numerous benefits attached to partnering implementation, reaping the dividend of successful partnering are prevented by various obstacles. Studies have been conducted to unveil partnering implementation barriers in different countries⁸⁻¹¹. It is worrisome to know that few of these researches have been carried out in developing world such as Nigeria. Identification of barriers to the implementation of construction partnering in Nigeria would assist in solving problems confronting partnering projects in Nigeria and improve the delivery of benefits to the participants. This paper unveiled the impediment to partnering implementation in Nigeria context to improve the future performance of partnering on construction

projects. This study would add to the partnering practice body of knowledge in the construction industry.

The confrontational relationship is mostly responsible for poor project performance. In¹² asserted that adversarial culture and the fragmentation of the industry associated with traditional procurement led to a lack of cooperation between project parties and responsible for the inefficiency of the industry¹³. Partnering practice is associated with the culture of the construction industry in some countries while the reverse is the case in others. However, the implementations of partnering are impeded by numerous barriers and prevent it from being successful.

Prominent partnering barriers are categorised in different ways in the literature, such as partnering structure, project environment, attitude, personal knowledge, and skills¹⁴⁻¹⁷. Categorized partnering barriers into four groups, namely: project structure, partnering Process and interpersonal knowledge and skill. In¹⁷ classified 15 identified partnering projects problematic issues into four main categories, such as all Project specific; Client specific; stakeholder's specific; and Contractor specific. In¹¹ grouped the impedance to partnering implementation into industrial, cultural, organisational barrier in the research conducted in Sweden as perceived by construction client.

Furthermore,¹⁶ classified barrier to partnering into four different types such as external environment; organizational culture; organizational climate; and organizational structure. In^{5,11} considered barriers to partnering implementation from four separate viewpoints which are: Economic, culture, juristically, and technical barrier. In⁸ uncovered five barriers to successful partnering, namely: Perceptions, knowledge and skills of partnering, sticking to the elements of partnering, and the nature and structure of partnering projects. In a research carried out by^{10,18} on barriers inhibiting partnering relationship in US construction sector, they discovered that: the corporate culture; the owner-constructor-engineer traditional roles; and the long time taking to develop the relationship. Some of the classifications are interconnected while several authors decided to list all the barriers without any grouping.

According to⁵ juristically and industrial barriers are similar¹¹ while economic and technical perceived as incorporated in the organisation's barriers. Project participant's atime use cultural ideology as a guide to taking a decision when confronted with difficulties most especially in project culture. In Nigeria for instance, application of partnering is restricted unknowingly by construction-related laws which stem from the competitive procurement policy known as "due process". Project parties already used to competitive tendering as means of procurement. The newly introduced partnering approach requires partnering workshops, performance monitoring and so on with unprecedented initial costs which to some is not economical, although it may have better benefits later^{5,9}. A survey conducted by¹⁴ reveal that 0.15% of the total cost of the project is the cost of partnering. Public projects that make transparency as their watch-word may not be able to justify this additional incurred expense although it may be small. Furthermore, technical barrier relates to the lack of understanding of concept and process of partnering with the construction industry.

Large numbers of partnering implementing challenges classified as cultural barriers and lack of partnering knowledge or training¹⁹. Culture plays a prominent role both as the enabler and barrier in partnering relationships. In¹⁷ studied problematic issues leading to unsuccessful project partnering in Australia from contractor perspective, uncovered client inability to commit to attitudinal change and implementation procedural expected of partnering relationship. The assessment based on contractor opinion which may not be the same if client view sampled.

In²⁰ investigated problematic issues relating to partnering implementation in construction projects in Vietnam through a questionnaire survey. They discovered seven underlying dimensions of problems in the process of implementing partnering, namely: Unsuitability application of partnering; unfamiliarity with the partnering concept; lack of commitment; poor communication; external constraint; failure to compromise; and lack of key stakeholders' involvement. In²¹ discovered that three major difficulties confronted partnering implementation in Hong Kong railway extension projects were: Bureaucratic organizations; uneven commitment; and commercial pressure which endangered partnering attitude, these impeded affect the effectiveness of partnering.

Emphasis on public accountability prevents flexibility to some extent which hinders the successful implementation of partnering concepts in construction project²².

2. Research Methodology

A survey design is adopted due to the nature of the study and before administered the questionnaire pilot study was conducted by given it to four professionals who commented on the readability, comprehensiveness, and accuracy of the questionnaire at the preliminary stage. After necessary observations have been taken care of, final questionnaire drafted then administered. The respondents were randomly selected from the lists of registered professionals with FCDA, Abuja, and LSDPC, Lagos, in Nigeria who have handled partnering projects before. The questionnaire survey was conducted within August and October 2015 to assess the perceptions of project participants (clients, contractors, and consultants) on the barriers against successful partnering implementation in Nigeria construction industry. Various barriers that formed the basis of the questionnaire obtained through extensive literature review. The target respondents are those involved or currently undertaking to partner in purposely selected projects in the study area. The questionnaire was self-administered to the respondents to rate their level of agreement to each of the thirty identified barriers on a five-point Likert scale (1 = strongly disagree and 5 = strongly agree). A total of 270 questionnaires were administered to the target respondents while only 213 were returned representing 79% respondent rate. Out the returned one, only 202 was analysed 11 of them dropped for lack of complete information. The respondents were architects, quantity surveyors, builders, civil engineers, directors, project manager. The breakdown is thus: clients are 48, contractors are 67 and consultants are 87. The majority of the respondents are ten to fifteen years working experience.

2.1 Data Analysis

Mean score method was used to establish the important of each barrier as perceived by the respondents. The average is computed using the formula:

$$MS = \frac{\sum(F \times X)}{N}$$

Where F represents frequency; represents variable scores, and N is a total number of responses for that particular variable. Collected data analysed with the aids of SPSS statistical package 22.

$$r_s = 1 - \frac{6\sum d_i^2}{n(n^2-1)}$$

Where d_i is ranking difference between two groups for each variable and n is number of pairs

The agreement on the rankings of the barriers between various groups of respondents was measured using the Spearman rank correlation coefficient (r_s) similar method use in evaluating construction time performance in construction industry²³.

Spearman rank correlation coefficient r_s is used to measure agreement in ranking between two respondents; it should be between +1 to -1. A +1 value implies a perfect linear correlation, whereas -1 and Zero mean no linearity.

$$t = r_s \sqrt{\frac{n-2}{1-r_s^2}}$$

The researcher used a t-test to test agreement in ranking the correlation coefficient (r_s) at a confidence interval of 95%. Where the null hypothesis is H_0 and alternative hypothesis is H_2 . The decision rule based on whether the t calculated values are greater than or less than the t critical values for $(n - 2)$ degrees of freedom and $n = 30$.

H_0 : two groups of respondents do not agree on the ranking of the barriers; H_1 : otherwise. Reject H_0 if $t > 1.701$ or $t < -1.701$ at 5 % level of significance.

3. Results and Discussion

Lack of commitment from project participants had an overall mean of 4.07 and rated first; this rating tallied with that of a consultant but with a mean of 4.06. Client rated it second with a mean of 4.10, while contractor rated it sixth with a means of 4.04. Project participants must have a total commitment to the partnering process if partnering implementation is to be successful. The uneven level of commitment is common in construction practice as a result of goals different among parties⁴. In Nigeria, construction issues are not attended to in time. Moreover, top management is not ready to relinquish their total support.

Participants are not committed to partnering philosophy which manifests on the dispute, claims, litigation that is still prevalent in Nigeria construction sector. Without committed open communication would be affected, and this would lead to inefficiency in problems resolution which would invariably affect the contractor's budget. Lack of committed to developing partnering attitude is a serious problem ravaging the industry in Nigeria¹⁷. This finding is similar to that of¹⁵. Lack of trust among the participants is another major barrier to Nigeria partnering project implementation, it was rated second with a mean of 4.02, contractors rated this barrier as first with a mean of 4.16 they believed that if the client had believed on their ability the projects would have been successful. Client rated it eighth position with a mean of 4.00; this is close to the consultant rating with a mean of 3.90 and seventh position. Lack of trust among the participants: Partners do not trust each other totally and as a result, they are not willing to communicate and release information⁸, even anything brought forward is suspicious. When there is no trust, it would be difficult for the partners to combine resources and knowledge as a way to eliminate adversarial relationships. Moreover, if there are no adversarial relationships, organizations would be willing to share information and control to enjoy obscured synergies in partnering system. There is no trust-based relationship in Nigeria construction industry. Demanding for the relevant experience, the track record of tenderers' working relationship in the previous projects is as a result of lack of trust. In⁸ finding is similar to this.

Lack of proper understanding of the concept and procurement act related barrier were considered 3rd in the overall ranking and a mean of 4.01; consultants equally rated it sixth and third respectively. Lack of proper understanding of the concept of partnering and processes within the construction industry is a barrier to the development of partnering in Nigeria. The idea of partnering is relatively new to construction practitioners in Nigeria. Sufficient technical and managerial competency is vital to the implementation of partnering. Government introduction of due process in 2007 made it a mandatory requirement to comply with when bidding and tender for public projects in Nigeria. The motive is to prevent corruption which has deeply rooted in the contract award

Table 1. Barriers to partnering as perceived by the 3 groups or respondents

Sn	Barrier	Client		Contractor		Consultant		Overall	
		Mean	Rank	mean	Rank	Mean	Rank	mean	Rank
10	Lack of commitment from project participants	4.10	2	4.04	6	4.06	1	4.07	1
13	Lack of trust among the participants	4.00	8	4.16	1	3.90	7	4.02	2
27	Proper understanding of the concept is lacking	4.02	5	4.09	3	3.92	6	4.01	3
28	Procurement legislation	4.02	5	4.04	6	3.97	3	4.01	3
1	Technical knowhow is lacking	4.13	1	3.91	14	3.95	4	4.00	5
20	Bureaucratic organizational setting	3.94	9	4.07	4	3.98	2	4.00	5
3	Unstable project leadership/ government	3.90	13	4.00	8	3.95	4	3.95	7
22	In built industrial adversarial relationship	4.02	5	4.07	4	3.76	17	3.95	7
2	Ambiguous contract terms and objectives	3.92	11	4.12	2	3.79	14	3.94	9
23	Lack of open and honest communication	4.06	3	3.99	9	3.69	21	3.91	10
7	inability to access long term loan	3.90	13	3.97	10	3.77	16	3.88	11
9	No regular monitoring of the problematic issues	4.04	4	3.76	28	3.85	9	3.88	11
25	Lack of pre-defined problem-solving process	3.85	18	3.87	18	3.84	10	3.85	13

Table 1 Continued

12	Breach of contract by partners	3.77	20	3.90	16	3.80	11	3.82	14
15	Unclear roles and responsibilities definition	3.92	11	3.73	25	3.80	11	3.82	14
18	Bankruptcy of partners/ financial problems	3.94	9	3.94	11	3.59	27	3.82	14
16	Failure to implement appropriate training and guidance measures	3.88	16	3.84	20	3.72	19	3.81	17
17	Lack of education and training incentives in new technologies and management approaches	3.90	13	3.70	27	3.67	24	3.76	18
21	The parties failed to share information	3.83	19	3.79	23	3.63	26	3.75	19
24	Poor attitude of the client's representatives	3.62	29	3.94	11	3.69	21	3.75	19
5	Lack of experience on the part of the contractor	3.73	22	3.78	24	3.75	18	3.75	19
8	Restrictions due to government regulations	3.87	17	3.70	27	3.64	25	3.74	22
11	Lack of partnering experience with the client	3.60	30	3.75	29	3.87	8	3.74	22
19	Inability to make a decision without consulting higher management	3.67	26	3.82	21	3.71	20	3.73	24
29	Unwillingness to compromise	3.73	22	3.82	21	3.57	28	3.71	25
26	Contractual clauses unfair risk sharing	3.63	28	3.93	13	3.56	29	3.71	25

Table 1 Continued

30	Lack of mgt competence & resource fullness	3.69	25	3.85	19	3.55	30	3.70	27
6	Inability to develop a “win-win” attitude	3.75	21	3.55	29	3.78	15	3.69	28
14	The financial pressure from the client	3.67	26	3.72	26	3.69	21	3.69	28
4	Meetings held without clear agendas	3.71	24	3.54	30	3.80	11	3.68	30
	Number (<i>n</i>)		48		67		87		202
	Level of significance		0.000		0.000		0.000		

system in Nigeria. This public procurement legislation aims to facilitate competition and unbiased procurement decisions, but it is a barrier to a partnering relationship. This due process procurement system cannot be grounded on trust-based negotiations; part of the prequalification requirements is proof of prior work experience which is against partnering relationships philosophy²¹⁷. Since this policy is introduced in Nigeria, governmental has not come up with specific partnering guidelines and policy to ensure effective implementation.

Lack of technical know-how and bureaucratic organizational setting are a serious obstacle to successful partnering implementation in Nigeria. The two items had a mean of 4.00 and were rated the fifth position. In the experience of parties on partnering implementation poses a great threat to the success of partnering^{15,24}. Lack of technical know-how slows down decision making and problem resolution process in partnering implementation. Practitioners are expected to acquire skills and knowledge necessary to facilitate the implementation process when this is not available it would be a threat to the implementation²⁵.

Unstable project leader/government and in-built industry adversarial relationship are serious barriers to partnering implementation in Nigeria, the items were rated the seventh position overall with a mean of 3.95. Frequent change of project leaderships either from the client or contractor side are common in public projects in Nigeria. Some projects witness more than three political administrations and ministers, all with different policies. Apart from that Nigeria culture is known with large power distance which is far apart from the principles of partnering. The project subordinates cannot take any decision on their own on the project without approval from the superior (boss). This idea is not in line with the principles of partnering. Furthermore, in the traditional setting, all the project parties have varying goals and objectives. Most of the projects in Nigeria are a one-off project before the relationship started developing most of the projects would have been completed (relationship develop with time). These findings are similar to that of¹⁸.

The barriers for implementing partnering in a construction project are assessed from different perspectives of the respondent groups (that is a client, contractor,

Table 2. Test for agreement on the ranking of 30 barriers by three groups of respondents

Group	r_s	t_{cal}	t_{tab}	Reject H_0	P value
Client & contractor	0.735	5.021	1.701	yes	Significant, <0.05
Contractor & consultant	0.529	3.299	1.701	yes	Significant, <0.05
Client & Consultant	0.750	5.997	1.701	yes	Significant, <0.05

R_s = spearman's rank correlation coefficient; t = t statistics; H_0 = null hypothesis; p = probability of rejecting null hypothesis

and consultant). The means for each group of respondents were calculated and ranked in descending order of importance as shown at the appendices. The mean values as rated by the client are ranged from 3.60 to 4.13; in which that of the contractor is from 3.54 to 4.16 while that of a consultant is from 3.55 to 4.06. The t-test conducted shows that the t calculated for client and contractor is 5.021 which greater than t tab of plus or minus 1.701, the result t_{cal} between the client and consultant is 3.299, while between the contractor and consultant is $t = 5.997$. The two values higher than 1.701 (all at $p < 0.05$). All the three participants agreed with the rankings of barriers.

After careful analysis of the results in Table 1, a further test is conducted to know how the stakeholders agreed on the barriers mentioned in the table above in Table 2. Emphasis is placed on the first to eight barriers in the ranking. In testing whether there is any agreement in the ranking among the respondents, the Spearman rank correlation coefficient r_s was computed with the aids of SPSS package. The computed r_s between client and contractor is 0.735; between client and consultant is 0.529, and r_s between contractors and consultants is 0.750 (at 0.000 significance level). It implied that there is an agreement in the ranking of the barriers by all the respondents. The results show there is strong agreement in the rankings

among all the groups. The client and consultant pairs have the highest degree of agreement, closely followed by the client and contractor. While contractor and consultant equally agreed but it is not so strong as the others two groups.

4. Conclusion

Project Personnel may be changed several times but without the commitment from the top management to support partnering to maintain the relationship momentum required would be difficult. Most of the barriers affecting partnering implementation in Nigeria are culture related barriers. The identified barriers would be difficult to change without changing cultural attitude. All the stakeholders agreed on lack commitment and trust as the main obstacles to partnering implementation. Unnecessary administrative requirements popularly known as a bureaucratic bottleneck and procurement policy of Nigeria is a serious constraint to the successful partnering implementation. To enjoy the full benefits of partnering in Nigeria it is crucial to adopt partnering principles to minimize if it cannot be totally eliminated the barriers to partnering implementation.

One way to mitigate the obstacles is through proper education and awareness campaign. There should be an adequate level of understanding of project partnering concept, and this could only be achieved when there is an awareness campaign to improve on the level of successful implementation. Moreover, lack of knowledge about the concept and practicability of partnering may be eliminated through some effective strategies such as the training workshops and promotional pamphlets, conferences, the launch of partnering seminars and together with the documentary evidence of research reports. The government needs to encourage the use of the partnering approach in Nigeria construction industry by provides a framework for it implementation and mitigates the restrictions to the implementation of partnering arising from related procurement regulations. The public organisation clients need to adopt more flexible administrative procedures that would encourage contractors' willingness to commit to partnering arrangements. There should be partnering attitudinal development among the stakeholders if this exists they would be fully committed to the process and principles. All those to be engaged should possess all the required skill and understanding of the project partnering requirements.

There should be effective communication and open channels to improve the trust among the project teams. Partners need to be built on a trust relationship to ensure successfully partnering implementation. It can be concluded that partnering implementation required behavior or attitude change to commitment, openness, trust, and communication.

Therefore, cultural change is important in flagging up partnering, and these will take care of other issues and problems¹⁰.

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