

Managing Stakeholder Opportunism in Public-Private Partnership (PPP) Housing Projects

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Abstract: Stakeholder opportunistic behaviour has been reported as one of the reasons for failure in public-private partnership (PPP) housing projects. This study aimed at managing stakeholder opportunistic behaviours in PPP housing projects in Abuja, Nigeria with view to devise strategies for addressing the menace towards successful application of PPP in housing. Purposeful sampling technique was used to select the study sample from the total population. A total of 93 questionnaires were administered, out of these, 61 were duly completed and used for the study. The study adopted the ranking model and mean rating in analysing the data. Conflict of interest and lack of trust were the major determinants of opportunism manifesting in deliberate underbidding by private sectors and delays in disbursement of approved project funds. Strategic behaviours can effectively be prevented and mitigated by developing trust among stakeholder and use of contract structure. The study suggests structuring of contracts such that opportunism is avoided or reduced to acceptable level, building of trust among stakeholders and building an environment with adequate incentives to penalise collusion attempts as strategies for preventing and mitigating opportunism in PPP housing projects.

Keywords: Stakeholder management, Opportunistic behaviour, PPP, Housing projects, Conflict of interest

INTRODUCTION

In recent times, the use of public-private partnership (PPP) in the procurement of infrastructure and housing projects has gained acceptance in developed and developing countries alike. The definition and concept of partnership revolves around cooperation among contracting parties, joint ownership of assets and sharing of project risks and benefits. The idea is that by cooperation between the public and private actors in the housing sector, better and more innovative services can be achieved at lower costs, it will promote good governance by way of accountability, transparency, effectiveness and efficiency in the provision of housing, reduced burden of debt on governments, foster best practices in sharing and transferring of risks, assure superior value for money, save time, facilitate innovation, encourage technology transfer, eradicate bureaucratic and political processes (Quartey, 1996; Capital, 2010). However, evidences have shown that the adoption of PPP in housing and infrastructure is not exclusively positive. One of the reasons responsible for failure of PPP projects is conflict of interest among key stakeholders which breeds opportunistic (strategic) behaviour.

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PPP are known to involve more stakeholders with varying interests than the traditional procurement system due to number of contracting parties involved. The success or otherwise of these PPP projects is dependent on the roles and decisions of these stakeholders which are influenced by parties' interest vested in the projects. It has been observed that in practice due to lack of cooperation, the public and private sector engage in opportunistic behaviour with the intent of furthering their personal interests with attendant consequences on the projects objectives (Mu, 2008; Qu and Loosemore, 2013; Sanda et al., 2019). Contracting parties feel that they are exploited at various points along the PPP negotiation process and that many risks are unfairly and inappropriately transferred to them without their knowledge, consent and agreement (Australian Constructors Association, 2012). Opportunism is seen as incomplete disclosure or calculated distortion of information to mislead, disguise, obfuscate or confuse a party to a contract by another with the view to extracting excess benefits than those promised in the contract. For instance, contractors may tell only half-truths about their abilities when making bid; they may refrain from making serious efforts to provide good service levels or otherwise refuse to behave in line with the interests of the public client if the chance of detection of such behaviour is low or sanctions absent or not serious enough to deter them from doing that (Mu, de Jong and Heuvelhof, 2010).

Opportunism (strategic behaviour as referred to by other researchers) in PPP projects may arise from environmental uncertainty, imperfect control over the project, asset specificity, information asymmetry, lack of commitment and self-interest seeking by contracting parties (Qu and Loosemore, 2013). Construction process is considered uncertain and complex; the uncertainty and complexity can affect the level of opportunism in construction projects (Gosling, Naim and Towill, 2013). Public-private partnerships (PPPs) are long term contracts, environmental conditions at the point of execution might differ from that which the project estimate was based. In addition, it is not possible for the negotiators to predict exactly how the weather could be during project implementation. For instance, unforeseen circumstance such prolonged heavy rainfall might force stoppage of work or a slight variation in soil analysis results might necessitate modification in the form of foundation earlier adopted in the design. The political environment might change leading to the review of the project. Closely related is the inability of parties to have perfect information that would enable them to have total control over the project. Asset specificity revolves around those objects of transaction that are too specific in both design and usage such that cannot be used at later date or for another purpose without significant financial lost which gives the contracting parties the window to behave strategically attempting to extract far and above benefits from the contract (Fligstein and Freeland, 1995). In a typical PPP arrangement, it is expected that one party would more information on certain aspects of the projects than the other and could use such information to extract more rent than specified in the contract. To cite a case, a private party may be more knowledgeable on construction techniques than the public party which could be a ground for opportunism. Owing to lack of commitment, parties to PPP may shirk in their contract responsibilities either using substandard building materials on the part of the contractor or the government may deliberately refuse to grant the necessary approval for the contract to take off. Stakeholders in PPP projects are often known to have opposing interests such that while the private party comes in to maximise profit, the public sector's interest centres on welfare and better service

provision. These conflicting interests present these parties with the opportunities for strategic behaviours in PPPs.

Opportunistic behaviour may manifest in a private partner submitting an optimistic bid that overestimates revenues and underestimates investment expenditures or operation cost during the public tender thereby misleading and deceiving public sector to win PPP contract or the winner bidder breaks the promise once winning the contract and refuses to fulfil the contract unless additional conditions are satisfied and the public sectors bear the extra risks (Vazquez and Allen, 2004; Chang, 2013; Lohmann and Rötzel, 2014). Furthermore, when the contract has been awarded, during the phases of design, construction, operation and maintenance, the contractor can still use tactics inconsistent with the clauses defined in the contract, shirk from duties and display doubtful morality in performing its tasks. During tendering, bidders may behave opportunistically by colluding among themselves thereby preventing the principals from having accurate information on the bidders leading to selection of non-optimal contractors (Mu, de Jong and Heuvelhof, 2010). Opportunism can also manifest in "free riding" in which a party obtains benefits from their partners without bearing proportional share of the costs of providing the benefits (Albanese and van Fleet, 1985). Forceful takeover is another manifestation of opportunism where the public party takes over an asset whose management is unwilling to agree to merger which directly led to private consortium bankruptcy (Spiller, 2008). Other ways in which opportunistic behaviour may manifest abound in the literature (Guasch, 2004; Chen, 2007).

Stakeholder opportunism has been fingered as one of the reasons for failure of PPP in housing and infrastructure. It has also been reported as source of numerous risks associated with PPP projects. Opportunistic behaviour leads to delays in project implementation, high-cost housing units due to renegotiation and possible review of contract elements, poor quality of housing units, outright cancellation of housing projects, disputes among contracting parties and prolonged court litigations, unnecessary variation order which affects the overall project costs, expensive cost of maintenance resulting from the use of low quality material (Mu, de Jong and Heuvelhof, 2010). There is the need to address opportunism in PPP housing for such projects to achieve the objectives they were designed for. This has triggered numerous studies on the subject in order to determine its causes and possible impacts on projects towards preventing and mitigating the menace for successful PPP projects.

In Nigeria, studies have been carried out on various aspects of PPP housing projects. Ibem (2011) had assessed the roles of government agencies in public private partnerships for housing provision. The opportunities and challenges of adopting PPP in housing provision in Ogun State has been examined (Ibem and Aduwo, 2012). The critical success factors for implementing PPP in housing were explored in order to determine the major risk associated with PPP housing projects (Onyemaechi, Samy and Pullard, 2015). PPP housing projects have also been studied by researchers in Nigeria (Oyewobi et al., 2012; Adeogun and Taiwo, 2011; Taiwo, 2013, among others). The adoption of PPP in housing as well as the risks involved has been discussed widely, but the role of stakeholders with respect to opportunism which is responsible for many of these risks and consequent failure of PPP projects has not been explicitly studied. This article therefore seeks to fill this existing gap by assessing the impact of stakeholder opposition on the implementation of PPP housing projects. In order to achieve this, the study seeks to provide answers to the

following questions: "What are the determinants of opportunistic behaviours in PPP housing projects in Abuja, Nigeria?", "What are the forms of opportunistic behaviour associated with the implementation of PPP housing projects in Abuja, Nigeria?", "What are the effects of stakeholder opportunistic behaviour on PPP housing projects in Abuja, Nigeria?" and "How can stakeholder opportunistic behaviour be addressed to ensure effective and efficient implementation of PPP housing projects in Abuja, Nigeria?". This study therefore aimed at assessing the implementation of PPP projects in Abuja, Nigeria with view to determine the impact of stakeholder opposition on PPP housing projects through the following steps:

1. Evaluate the determinants of opportunistic behaviours in PPP housing projects in Abuja, Nigeria.
2. Examine the forms of stakeholder opportunistic behaviours in PPP housing projects in Abuja, Nigeria.
3. Determine the effect of stakeholder opportunistic behaviour on PPP housing in Abuja, Nigeria.
4. Suggest strategies for mitigating stakeholder opportunistic behaviour in PPP housing projects in Abuja, Nigeria.

THEORETICAL FRAMEWORK FOR THE STUDY

Despite the adoption of PPP as a procurement method in the built environment and other disciplines, definition of the concept still remains a contentious issue among professionals in the construction industry. The variables that constitute PPP is still subject of debate among procurement experts. In line with existing literature therefore, this study adopted two independent but interrelated theories to form the theoretical framework; these include Agency Theory and Positive Perspective Theory. Agency Theory offers a conceptual framework for studying the relationship between the principal (owner) who must secure the services of an agent (manager) to accomplish a task that the principal cannot accomplish successfully on his own (Halachmi, 2010). The Positive Perspective Theory covers the transaction cost arising from the actions or inactions of the key stakeholders in PPP contracts.

The basic assumptions of the Principal-Agency Theory (PAT) are information asymmetry and goal conflict which result into strategic behaviours in typical principal-agent relationships. Information asymmetry occurs when one of the parties has more private information about his abilities or the object of exchange than the other party resulting into risks of hold-up in contracts (Ceric, 2013; Khatleli and Root, 2008). Goal conflict emanates from differences in contract objectives between the power and budget maximising behaviour of the principal and the profit and utility-maximising behaviour of the agent (van-Slyke, 2006; Phoelsingh, 2006; Palma, Leruth and Prunier, 2009. As a result of conflicting goals, the parties tend to behave strategically in pursuit of their self-interests by exploiting each other's "ignorance" to get a better deal (Halachmi, 2010).

In PPP, the government agency (principal) enters into contract with a private entity (agent) for the purpose of developing an asset or delivery of services traditionally delivered by the public sector. The development of PPP project is a

complex task requiring governments and private enterprises to prepare proposals, documents, conduct bidding, formulate contract, negotiate deals and arrange for funding. In a typical PPP contract, it is expected that one party may have information at its disposal that the other may not. This breeds the risk of information asymmetry by placing the informed party in a better position to take advantage of the other party with less information. In addition, the concern of government is public service and efficiency in the use of resources while profitability is often the goal of the agent. PPP projects, therefore, have contractual features that make it suitable for applying the PAT in order to understand the complexities and intricacies of this type of relationship. The agency theory describes and predicts the costs in PPP relationships but fail to curtail transaction costs which arise due to opportunistic behaviours. Consequently, Positive Perspective Theory was explored to address these shortcomings enumerated before.

The Positive Perspective Theory is concerned with PPP transaction cost in agency relationships. The basic assumption of this theory is that participants in agency relationships such as PPP have conflicting goals and the effort to pursue these goals are likely to raise transaction cost (Boardman and Vining, 2007). Accordingly, the PPP project is likely to incur high contract bargaining costs, opportunistic behaviour by one or both parties, failure to achieve goals and partnership dissolution. The Positive Perspective Theory attempts to determine whether and in what circumstances PPP will actually have lower social costs of projects (Vining and Boardman, 2008). The Positive Perspective Theory looks at the contract structuring as a tool for lowering transaction cost in agency relationships.

In a typical PPP arrangement, the private sector wishes to maximise profit over and during the contract period. In fact, private sector would want to maximise the net present value (NPV) of their profit *ex-ante* and where possible, would seek to find ways to appropriate additional profits as the contract unfold over time (Boardman and Vining, 2007). However, if the contracts are written tightly there will be little opportunity to do so. It is therefore imperative to organise transactions so as to economise on bounded rationality while simultaneously safeguarding them against the hazards of opportunism (Williamson, 1995). Based on a positive perspective theory, Vining and Boardman (2008) proposed eight rules for government in order to avoid opportunistic behaviours and at the same time lower transaction cost in agency relationships. The government on entering into contract such as PPP should establish a jurisdictional PPP constitution; separate the analysis, evaluation, contracting/administration and oversight agencies; ensure competitive bidding process; be wary of projects with high asset-specificity or complex projects involving high uncertainty, include standardised, low-cost arbitration procedures in all PPP contracts; avoid stand-alone private sector shells with limited equity from the real private sector principals; prohibit the private-sector contractor from selling the contract too early; and have a direct conduit to debt holders (Kurniawan, 2013).

Managing opportunism in PPP projects requires holistic approach; the relationships between the stakeholders need to be defined and the cost associated with the omission or commission by the partners must be properly addressed. The theoretical framework therefore attempts to explain the problems associated with PPP relationships, predicts the cost of eliminating risks that may arise from opportunism among the parties and the modalities of addressing such costs. In this context therefore, the Positive Perspective Theory can be regarded as a logical conclusion of the Agency Theory.

METHODOLOGY

This study focused on management of stakeholder opportunistic behaviour in PPP housing projects. Data for the study was collected through structured questionnaire. The questionnaire had two sections; Section A focused on background information of the respondents while the focus of Section B was on the determinants of opportunism, forms of opportunistic behaviours, the impact of such behaviours on PPP housing projects as well as strategies for addressing opportunism in PPP projects. Factors pertinent to key themes of the study were extracted from existing literature (Mu, 2008; Mu, de Jong and Heuvelhof, 2010; Lohmann and Rötzel, 2014). The respondents consisted of registered contractors and professionals in the built environment, but the sample frame was restricted to those with requisite experience in PPP housing. In order to determine the total population, the list of all registered contractors operating within the study area was obtained from the Federation of Construction Industry (FOCI), which is the registration body for contractors. Those of the registered professionals were sourced from the various professional bodies of the respective professionals.

Purposeful sampling technique was used to select the study sample from the total population. This technique is employed when selecting a sample that their experience is useful to achieving the purpose of the study. A total of 93 questionnaires were administered, out of these, 61 were duly completed and used for the study. The background information of the respondents is presented in Table 1. Considering their academic qualifications, roles played in PPP housing projects and years of experience in the construction industry, it can be inferred from Table 1 that the respondents have the requisite knowledge to supply valid information on the subject of the study. Consequently, the information obtained were considered valid and reliable for the study.

Table 1. Background information of respondents

Summary of Information	Frequency	%	Cumulative Percentage
Academic Qualification			
National diploma/Higher national diploma	6	9.8	9.8
Bachelor of Technology (BTech)/Bachelor of Science (BSc)	24	39.3	49.1
Master of Technology (MTech)	22	36.1	85.2
Doctor of Philosophy (PhD)	9	14.8	100.0
Total	61	100	
Professional Body			
Architecture	11	18.0	18.0
Building	24	39.0	57.0
Quantity surveying	7	11.5	68.5
Engineering	7	11.5	80.0
Others	12	20.0	100.0
Total	61	100	

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Table 1. *Continued*

Summary of Information	Frequency	%	Cumulative Percentage
Role of Respondent in PPP Projects Executed			
Government Agent	22	36.1	36.1
Contractor	7	11.5	47.6
Consultant	22	36.1	87.3
Sponsor	18	16.3	100.0
Total	61	100	
Years of Experience in Construction			
1 to 10	17	27.9	27.9
11 to 20	30	49.1	77.0
21 to 30	12	19.7	96.7
30 and above	2	3.3	100.0
Total	61	100	

The study adopted the ranking model and mean rating in analysing the data. These methods were used to determine motivating factors for opportunism, the forms of opportunism prevalent among stakeholders in PPP housing projects and the impact of opportunistic behaviour on PPP housing projects.

RESULTS AND DISCUSSIONS

This section discussed results of the findings in line with major themes of the study. The article examined stakeholder opportunistic behaviours in PPP housing projects; hence the key themes border on determinants, forms and impact of opportunism on PPP housing projects; and strategies for preventing and mitigating opportunistic behaviours in PPP housing projects.

Determinant of Stakeholder Opportunism in PPP Housing Projects

The factors influencing opportunism among stakeholders in PPP housing projects were investigated. The respondents were asked to rate the identified factors which was analysed and the result is presented in Table 2. The table indicated that the three factors influencing opportunism were "Conflict of interest among key stakeholders" (3.76), "Lack of trust among parties to contracts" (3.69) and "Information asymmetry" (3.34). These factors therefore are the key determinants of opportunistic behaviours in PPP housing projects in Abuja.

Table 2. Determinant of opportunistic behaviours in PPP housing projects

Determinants of Stakeholder Opportunism	Mean Score	Rank	Standard Deviation
Conflict of interest among key stakeholders	3.76	1	1.32
Lack trust among key stakeholders	3.69	2	1.30
Information asymmetry	3.34	3	1.09
Lack of commitment of contracting parties	2.30	4	1.43
Imperfect control over the project	2.20	5	1.48
Asset specific of the project	2.20	5	1.50
Environmental uncertainty	2.18	7	1.27

PPP is a contractual arrangement consisting of stakeholders with diverse interests coming together to pursue a common goal. However, studies have shown that in typical agency relationships such as PPP, conflict of interest is inevitable. The PAT postulates that parties to contracts such as PPP housing tend to pursue their personal interests against the collective interest of the projects. Often times, the private company tends to focus on profit maximisation and the government on the other hand concentrates on the welfare aspects of the project. These conflicting interests become a breeding ground for opportunism in which contracting parties explore to maximise their individual objectives thereby undermining the objectives of the project. In Nigeria, it is not uncommon to find contractors not building to specification just to cut cost and maximise profit. Another ground for opportunism is lack of trust among the key stakeholders. Conflicting interests breeds distrust among stakeholders in principal-agent relationships as predicted by the PAT. Trust and commitment among project team managers/stakeholders is a key precondition for the success of partnerships in construction. In Nigeria, however, the needed trust is seldom achieved especially during the implementation stage of the project leading to various forms of opportunism among stakeholders as a form of self defence against anticipated untrustworthiness of the other party. Distrust and suspicion between owners and contractors during the construction stage of projects had also been reported as the main reason for poor performance in the Chinese construction industry (Yun and Jiang, 2010).

Information asymmetry has also been fingered as a key determinant for opportunism. It is expected that one party would be more informed in certain aspects of the projects than the other. For instance, the private party is more knowledgeable technically thereby affording it the opportunity to take undue advantage of the public agency by behaving strategically by way of substituting specified materials with substandard ones or by adopting cheap alternative methods of construction. These have resulted in poor quality projects, cost and time overruns in PPP housing projects in Nigeria (Ibem, 2011; Ibem and Aduwo, 2012). It has been suggested that opportunism can be mitigated through thorough screening of contractors to ascertain the appropriateness and suitability for the job by inducing them to make public the private information they possess about their abilities or subject of exchange and by structuring the payment system to be dependent on the observed project outcome (Rothschild and Stiglitz, 1976; Khatleli and Root, 2008).

Forms of Stakeholder Opportunism in PPP Housing Projects

Opportunistic behaviours among stakeholders manifest in diverse ways. The respondents were asked to rank the various forms of opportunism in PPP housing projects. Table 3 therefore presents the various forms of opportunism among stakeholders to PPP housing projects in Abuja. The result showed that "Deliberate underbidding by the private party" (0.93), "Refusal/delay in disbursing approved project funds" (0.89) and "Use of substandard building materials by the private party" (0.87) were ranked the top three forms of stakeholder opportunism in PPP housing projects in Abuja. This indicated that opportunism in PPP housing projects in Abuja manifests through deliberate underbidding for contracts, delay in reimbursing contractors as well as delay in releasing project funds.

Table 3. Forms of stakeholder opportunism during implementation of PPP housing projects

Forms of Stakeholder Opportunism	Respondent Rankings					Rank Sum	Relative Index	Rank Order	%
	1	3	5	6	48				
Deliberate underbidding by the private sector	1	3	5	6	48	286	0.93	1	93
Refusal/delay in disbursing approved project funds	3	1	8	6	43	272	0.89	2	89
Use of substandard building materials by the private party	2	3	6	10	40	266	0.87	3	87
Delay in reimbursing contractors by the public party	1	6	14	16	24	239	0.78	4	78
Refusal to follow project design and specification	2	10	10	18	21	229	0.75	5	75
Inadequate supervision leading to poor quality of housing units	2	2	6	21	22	218	0.71	6	71
Power misuse by the public partner	8	10	19	17	7	188	0.61	7	61
Deliberate holding over the housing project by the private partner.	5	10	27	15	4	186	0.61	7	61
Failure/delay in granting necessary permit for project implementation	12	13	15	16	5	172	0.56	9	56
Free riding	10	15	27	5	4	161	0.53	10	53
Hostile takeover of project by government	13	14	20	10	4	161	0.52	11	52
Social surplus capture	10	10	16	15	10	158	0.51	12	51

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Table 3. *Continued*

Forms of Stakeholder Opportunism	Respondent Rankings					Rank Sum	Relative Index	Rank Order	%
Use of unqualified personnel/operatives during construction	15	14	16	13	3	158	0.51	12	51
Refusal/inability to provide land as specified in the contract agreement	10	15	16	15	5	143	0.46	14	46

In Nigeria, the selection of partners is made through the process of public tender where the bidder with the lowest responsive evaluated tender is selected in accordance with the provision of the National Procurement Act. In order to win the bid, contractors underbid quoting low price thereby increasing their probability of winning the bidding process. In addition, contractors collude among themselves strategically in the tendering process in a way that they agree with each other upon winning the bids in turn, or they would collude in setting the prices thereby deceiving the tender board into adversely selecting the wrong bidder. According to PAT, moral hazard by way of misrepresentation of information by contractors (agents) is inevitable in contractual arrangements such as PPP housing; this often manifest in renegotiation of contracts. It has been reported elsewhere that in bidding for PPP projects, private partners submit optimistic bids that overestimate revenues and underestimate expenditures or operation costs during the public tender process for the purpose of strategically initiating contract renegotiation during the implementation stage of the project (Lohmann and Rötzel, 2014). Renegotiation of PPP contracts in Nigeria has become a recurrent decimal generating variation in design and increase project costs resulting in high cost of housing units. Deliberate underbidding or colluding among contractors with the view to force renegotiations during contract implementation can be eliminated by entering into fixed-cost contracts which does not give room for contractors to ask for contract review thereby placing on them the responsibility of any surge in project costs.

The government or financial institution may deliberately refuse or delays the disbursement of approve project funds. This could be achieved through creating unnecessary administrative bottlenecks or procedures to be fulfilled by the private party. A study on PPP housing projects reported time overrun and substandard housing units owing to opportunism in which the government refused to release the earlier agreed counterpart funds for the project thereby compelling the private sector to lower the standard of construction. Contractors can mitigate this form of opportunism by arranging for readily available alternative source of funds to counter such delays in disbursement of approved development funds. In developing countries such as Nigeria where corruption rate in the construction industry is high, such funds are either fixed in certain accounts for unproductive gains or contractors are expected to part with certain sum as kick-back for they are released. There are abandoned PPP housing projects in many Nigerian cities due to lack of funds; contractors find it difficult to access the funds that were already approved for such projects. Cases of substitution of specified building materials with substandard ones by contractors in the Nigerian construction industry is rampant. Having superior knowledge in the science of materials, contractors under the guise

of unavailability replaces the preferred materials with inferior materials to minimise project expenditure. This has often led to production of low quality housing with high running and maintenance cost manifesting long after the projects have been commissioned and put to use.

Effect of Stakeholder Opportunistic Behaviour on PPP Housing Projects

Opportunistic behaviours among contracting parties have negative influence on project objectives. In order to determine the impact of opportunism in PPP housing projects, the respondents were required to rank the impact factors in order of importance. Table 4 therefore presents the impact of opportunism of PPP housing projects in Abuja. The table indicated that "Delays in project implementation" (4.38), "Unnecessary variation orders in project design and specification" (4.21) and "Poor quality of housing units owing to poor workmanship" (4.00) were the top three impacts of stakeholder opportunism in PPP housing projects in Abuja. This showed that delays in executing projects, unnecessary variations in contract and poor quality of housing are the major impacts of opportunism in PPP housing projects.

Table 4. Effect of stakeholder opportunistic behaviour on the implementation of PPP housing

Impact of Stakeholder Opposition	Mean Score	Rank	Standard Deviation
Delays in project implementation leading to time overrun	4.38	1	3.48
Unnecessary variation order in project design and specification	4.21	2	3.40
Poor quality of housing units owing to poor workmanship	4.00	3	3.15
Outright cancelation of housing projects	3.81	4	3.38
High cost of housing units	3.67	5	3.12
Contractual disputes and prolonged court litigations	3.04	6	2.73
Total collapse/reordering of contractual arrangements	2.59	7	2.73
Inability to provide the agreed housing units	1.58	8	2.70
Low user satisfaction over the asset	1.50	9	2.69

Opportunistic behaviour is known to have diverse impact on PPP projects including delays in project implementation. Opportunism by way of hold-ups in construction contracts may lead to unnecessary delay in contracts implementation thereby translating into time overruns and possibly hike in cost of projects. It had earlier been reported that time overrun are the major risk factors in PPP housing projects in Abuja, Nigeria citing lack of cooperation between key stakeholders as major reason. Opportunism-induced court litigations are recurrent decimals in the Nigerian construction industry with consequent impacts on the project duration. Although PPP is an incomplete contract which makes it practically impossible to

capture all the possible contingencies that may arise due to the long-term and complex nature of the projects thereby making renegotiation inevitable, project parties take advantage by behaving strategically to gain more than expected during renegotiations. Renegotiations may take time which affects the project delivery period; it may result into increase cost of projects invariably increases the costs of housing. Consequently, PPPs are often adversely affected by contract renegotiations. Where contractors underbid, the contract sums quoted usually do not cover the project expenses, contractors therefore behave opportunistically seeking for additional funds to balance up the deficits. In the Nigerian construction industry, contractors seldom complete projects without seeking for review of project cost or requesting for additional funds as the quoted sum in the bidding documents rarely cover the project expenditure. It has been reported in an earlier study elsewhere that due to small profit margin caused by deliberate underbidding, the private sectors often subcontract the projects, does shoddy work and uses substandard materials to reduce project cost as a result poor housing manifests because of insufficient investment in technology, equipment and materials (Bi and Ma, 2018).

Strategies for Mitigating Stakeholder opportunism in PPP Housing Projects

The extent to which opportunism can be prevented or mitigated depends largely on the efficacy of the measures employed. Table 5 presents the results of investigation carried out on the effectiveness of the strategies used by stakeholders in preventing and mitigating opportunistic behaviours in PPP housing projects. The top measures been used were "Developing trust among stakeholders" (0.88), "Carefully drafted contracts" (0.87), "Stringent penalties on defaulting parties" (0.79) and "Strong legal and institutional framework to ensure parties adhere to contract agreements" (0.79). These are the most efficient measures of preventing and mitigating opportunism in PPP housing projects in Abuja.

Table 5. Strategies for mitigating stakeholder opportunism in PPP housing projects

Strategy	Respondent Ranking					Rank Sum	Relative Index	Rank Order	%
Developing trust among stakeholders	2	3	5	8	43	270	0.88	1	88
Carefully drafted contract	1	4	6	10	40	267	0.87	2	87
Stringent penalty on defaulting parties	2	6	13	13	27	240	0.79	3	79
Strong legal and institutional framework to ensure parties adhere to contract agreements	5	11	10	18	17	214	0.79	3	79
Strong political will by the public sector	2	10	8	18	23	233	0.76	5	76
The use of performance-based contracts mechanism	1	10	14	14	22	227	0.74	6	74

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Table 5. *Continued*

Strategy	Respondent Ranking					Rank Sum	Relative Index	Rank Order	%
	5	10	20	22	4				
Proper and adequate supervision by competent hands	5	10	20	22	4	193	0.63	7	63
Incentives to the private sector, e.g., allocation of certain housing units as profit	10	10	17	10	14	191	0.62	8	62
Adopting joint implementation strategy for PPP housing projects	10	15	10	19	7	181	0.59	9	59
Securing advanced/reserved project funds	10	14	16	18	3	173	0.57	10	57
Provision of speedy dispute resolution mechanism	10	15	20	12	4	168	0.55	11	55

Lack of trust is a key factor for breeding opportunism in PPP projects. Consequently, developing trust among stakeholders will go a long way in eliminating opportunism. Trust improves mutual understanding among project participants which impact positively on project performance. Project managers should make more efforts to invest in developing friendship, loyalty and trust among contracting parties through tangible and intangible behaviours, such as sharing of knowledge and supporting common values. Developing trust would help reduce the possibility of shirking among stakeholders. Opportunism can also be mitigated or prevented by carefully drafted and efficient contracts. For instance, a complete contract gives no room for renegotiation thereby eliminating opportunisms that often manifest during contract renegotiation. Although a complete contract is almost an impossibility given the long term nature of PPP contracts and inability of negotiators foresee the future, a well drafted contract will help in preventing opportunism. Similarly, contracts can be designed to allow the private sector claims residual profits to serve as strong motivation not to engage in opportunistic behaviour. These forms of contract would serve as an added impetus to the private sector to be more efficient in project management and service delivery.

Opportunism in PPP projects can also be prevented or mitigated by stringent penalty on defaulting parties and availability of strong legal and institutional framework to ensure parties adhere to contract agreements. Intensified contract policing by professional bodies and relevant agencies with the view placing heavy sanctions on defaulting parties would discourage opportunism and improve project success. Adequate legal and institutional framework for enforcing such sanctions would help in preventing and mitigating opportunism. For instance, strategic tendering through collusion among bidders is a clear reaction to the tendering environment. Where contractors are sure to get away with strategic behaviours due to inadequate policing institutions, they take advantages of public parties by misrepresentation thereby determining surreptitiously the winner of the bidding process. Therefore, there is the need to build an environment with adequate incentives to penalise collusive behaviours among contractors.

CONCLUSION

State withdrawal from the provision of public services such as housing has resulted in the growing use of PPP in many developed and developing countries for housing provision. The use of capital (that is off-balance sheet of the government), competence and expertise from the private sector increases efficiency in the production and delivery of housing. The adoption of PPP in housing projects has tremendous benefits however it has one major disadvantage which is conflict of interests among the key stakeholders. The conflict of interests between the profit maximisation of the private sector and the welfare maximisation of government manifest itself in opportunism throughout the project. Based on economic theories, opportunism is inevitable in agency relationships such as PPP housing projects. This article examines opportunistic behaviours in PPP housing projects with the view devising strategies for better management of opportunism in construction projects. The study shows that self-interest seeking and trust-related issues are the motivating factors for strategic behaviours among stakeholders. Contractors would deliberately submit optimistic bids that are often unrealistic with the view of triggering renegotiation during the course of the projects. This has been one major reason responsible for failures in PPP housing projects. Although theoretically, renegotiations are unavoidable in long term contracts such PPPs, practitioners should do their best in order to avoid the need for renegotiation. This can be achieved through building of trust among stakeholders and credible increase in the penalties for collusion attempts, commensurate to the potential benefits from the collusion to deter contacting parties from engaging in opportunistic behaviours.

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