

## Institutional Arrangements and PPP Housing Project Outcomes: Case Study of Sunshine Garden Estate Oba-Ile, Nigeria

Adebayo, Adedayo Abimbola<sup>1</sup>, ANIFOWOSE Ojo Joseph<sup>2</sup>

<sup>1</sup>(Department of Governance and Technology for Sustainability (CSTM), University of Twente, the Netherlands/  
Department of Architectural Technology, the Federal Polytechnic, Ado-Ekiti, Nigeria)

<sup>2</sup>(Department of Building Technology, the Federal Polytechnic, Ado-Ekiti, Nigeria)  
a.a.adebayo@utwente.nl

**Abstract:** - Acute lack of financial resources in Nigeria have compelled governments to implement various public private partnerships (PPP) projects to address current urban housing shortages. Such projects have not always met residents' satisfaction especially in terms of defective construction, with PPP Institutional capabilities emerging as a critical issue. This paper analyses issues of residents' perceptions of the link between institutional arrangements and outcomes of PPP urban housing projects in Nigeria, in the context of the Sunshine Garden Estate (SGE), Oba-Ile, Ondo State. Drawing on both quantitative and qualitative data from a survey of 185 SGE residents, we show that one of the major predictors of residents' resistance toward accepting PPP urban housing stocks was explained by perceptions of deficient institutional arrangements. We further argue that inadequate attention to public consultation, project monitoring and lack of competitive bidding of the Sunshine Garden Estate has compounded the sense that the PPP is another form of privatization in which the provisions of social services and infrastructure is contracted out to private sector organizations. Attention to public consultation, project monitoring and competitive bidding process are vital to avoiding residents' distaste for PPP urban housing stocks and to the successful and ethical implementation of infrastructure projects in Nigeria..

**Keywords:** - defective construction, institutional arrangements, public private partnerships, sustainable urban housing

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### I. INTRODUCTION

This paper investigates to what extent institutional arrangements seen as symbolic frameworks that create shared meanings and control that provide order to social action (Scott 2008), impact Public Private Partnerships (PPP) Urban Housing Project outcomes. PPP is defined as an "arrangement whereby private parties participate in, or provide support for the provision of infrastructure, and a PPP project results in a contract for a private entity to deliver public infrastructure-based services" (Grimsey and Lewis, 2004, p.2). The paper evaluates residents' perception of the influence of PPP institutional arrangements on defective construction of the Sunshine Garden Estate (SGE) Oba-Ile, Ondo state.

There has been much global interest related to PPPs (Public Works Financing, 2010; Hodge, Greve and Boardman, 2011), particularly with the recent financial crisis. Miraftab (2004) noted that PPP was being celebrated globally as a viable strategy for addressing the shortage of public services in cities in the developing world. The global recognition accorded PPP as an alternative to government provider approach is based on the notion that it promotes multiple stakeholders' participation in the provision of critical infrastructure (Pessoa, 2006; World Bank, 2006), leads to a reduction in governments' expenditure (Jamali, 2004; Brown et al., 2006), and encourages efficient use of resources for improved service delivery at an affordable cost (Klijn and Koppenjan, 2000).

These apparent merits according to Jamali (2004) have prompted key international financial institutions, including the World Bank and International Monetary Fund to mount pressure on many developing countries to shift emphasis from state provision to liberalization and privatization of service provision. Of course, there are also criticisms of PPP, such as delays/cancellations cause by protracted negotiations between public and private partners, lack of transparency in partner selection, conflicts of interests, and failure to have/use competitive tenders(Phang,2007;Siemiatycki,2010). These issues increase the public sector's exposure to risks and bailouts of failed concessions (Irwin et al., 1999; Ehrhardt and Irwin, 2004); however, PPP has played, and will continue to play, an important role in the development of global infrastructure, particularly in light of the financial and technology innovation needs of the public sector.

According to Matos-Castano et al (2012), PPPs often take place under a dominant institutional environment. Previous research has shown that the institutional environment has an impact on the outcomes of PPP projects (Delhi et al., 2010). Recent work has also confirmed that rather than overcoming institutional capacity constraints, PPPs require a variety of new types of institutional capacity (Jooste et al., 2011). Mu et al. (2010) explains that the occurrence of undesirable parties' performance is a sign of institutional deficiencies, capturing the need to improve the institutional setting where projects take place.

Governments operate in an institutional environment which influences their actions. These institutional environments are created by agents like national or state governments that are sufficiently powerful to impose structural practices such as regulations or formal procedures because of the authority they possess (Scott, 1987). The existing norms, regulations, and procedures are the means through which governments attempt to pursue their goals. These elements are the result of three types of institutional supports: regulative, cognitive, and normative (Scott, 1995; Henisz et al., 2012). Regulative supports include established understandings of public policy, procedures, laws and formal mechanisms. Normative supports prescribe values and norms which determine what is acceptable at a given environment. Cognitive elements determine the extent to which broader belief systems and cultural frames are imposed or adopted by organizations.

In the case of PPPs, governments are responsible to establish programs and develop the necessary capacity to ensure project success. The way a government shapes the environment for PPP development will depend on the institutional context where projects take place. The policy interventions will have an impact on the institutional capabilities of the environment to foster PPP development and provide an enabling environment (Jooste et al., 2011).

However, outcomes of PPP housing projects have often been mixed particularly, in developing economies. For example with the use of the PPP model to procure the Sunshine Garden Estate, complaints against defective construction of the urban housing project has drawn the charge that direct government provision of urban housing are preferable to the PPP models. Furthermore, despite the existence of academic contributions analyzing the interlink between institutions and PPP projects, little empirical research has been done that evaluates the effects of the evolution of the institutional environment on project outcomes for PPPs, and the few comparative studies have mainly focused on contexts with similar institutional traditions (Aziz, 2007; Jooste et al., 2011; Petersen, 2011), placing great emphasis on the institutions and largely ignoring the diversity of reactions that comes from differing institutional contexts, particularly those of developing economies. Set against these considerations, the need to explicitly address the role of institutional arrangements and the defective construction of Nigeria's SGE estate was recognized.

Using three "institutional capabilities": legitimization; trust; and capacity, the study offer practical insights into the institutional challenges of PPP urban housing development and implementation in Africa and Nigeria in particular. The findings are also expected to extend our understanding on the role of Institutional arrangements to PPP governance outcomes in housing delivery.

## **II. BACKGROUND STUDY AND LITERATURE REVIEW**

This section provides background for the concept of PPP and urban housing delivery in Nigeria. PPP Institutional capabilities that enhances outcomes in infrastructure projects are identified. Finally, attributes of defective construction were examined.

### **2.1 Understanding PPPs**

Public-Private Partnerships is a generic name that is being applied to several different types of contractual agreements between the state and the private sector for the purpose of public infrastructure development and service provision. A long time provider of goods and services to the government through traditional methods of procurement and privatization, PPP sees the private sector increasingly taking on activities previously considered the exclusive responsibility of the state, as the State becomes the 'buyer' rather than the supplier of services. As the word 'partnerships' suggests, the aim is to create an infrastructure 'dream term' by combining the best capabilities of the public (legislation, regulations, social concern) and private (innovation, efficiency, finances) sectors to find a solution to infrastructure -related public needs (Colverson and Pererra, 2012).

Colverson and Perera (2012, p.2) postulated further, "accurately defining a PPP is problematic because by nature it is a contextual concept, responding to the institutional, legal, investment and public-procurement settings of different jurisdictions, whilst, also considering the contextual nature of individual agreements. However in a constant state of flux, PPPs can generally be said to include: Long term contracts/agreements/relationships; a private funding component; provision of services or infrastructure through the private sector; significant transfer of risk to the private sector, such as investment, design, construction, or operational risks; complex contractual responsibilities and deliverables that vary over the contract period as the project moves through its phases, such as from finance to construction and operation; the return of

infrastructure/services to the control of the state at the end of the contract term or; and the provision of services by the private sector on behalf of the State following the fulfillment of design and build responsibilities.”

PPP as a collaborative arrangement is based on mutual trust between the public and private sectors (Ong and Lenard, 2002; UNHABITAT, 2006) and it entails sharing of responsibilities, benefits and risks among governments, markets and people in the delivery of vital public services. This conception draws heavily on the Enabling Markets to Work (World Bank, 1993) and the Public Management (NPM) theory (Yamamoto, 2007) and argues that PPP seeks to address the shortcomings of government provider approach by engaging the private sector in a collaborative manner.

This implies that PPP is seen as an institutional arrangement consisting of interdependent partners who play different roles according to their strengths and weaknesses in achieving common goals in a win-win situation (UN-HABITAT, 2006). What this means is that PPP seeks to encourage governments to move away from direct provision of services and infrastructure, but rather to focus mainly on providing enabling regulatory and financial environment that would facilitate optimum performance of the private sector in the different aspects of development. With this understanding, the role of public sector agencies in PPP is essentially that of eliminating key constraints that inhibit optimum performance of the private sector in infrastructure and service provision.

There are a range of options available to public authorities that wish to involve the private sector in the procurement process, and within that continuum PPP can take many forms according to the jurisdiction in which it is operating. Three common examples that also help to describe the nature of the relationship between public and private sectors are:

1. Build-Own-Operate-Transfer (BOOT): The private sector is responsible for the design, construction and operation of the infrastructure over the project term, with ownership and control returning to the public sector at contract's end.
2. Build-Own-Operate (BOO): Here the private sector retains complete ownership of the infrastructure after completing the design and construction phases and also continues to operate the facility, essentially replacing the government as provider of public services for the length of the contract term.
3. Build-Transfer-Operate (BTO): In this case the public sector assumes ownership of the infrastructure on completion of the design and build phases, leasing it back to the private sector for operation.

Although we have not expressly included reference above to financial arrangements, the private sector traditionally assumes the majority of funding/financing responsibilities within these types of PPP. Jurisdictions will have different approaches to incorporating private sector finance and often utilize different names such as 'Leasing' - which are build-operate-transfer type contracts used in France minus the private sector finance component. 'Joint Ventures' are another type of PPP whereby the public and private sectors create a separate legal company to jointly finance, own and operate projects, such as occurs in the United States. Some PPPs, such as examples found in wastewater treatment in Canada, relate to 'Operate and Maintain' where the private sector has no previous involvement in the design and build phases but merely operates a service or provides overall management of a facility (Grimsey & Lewis, 2007).

From the foregoing, besides the benefits of PPP, there are also obvious longstanding concerns on the possibility of PPP resulting in the loss of independence in decision making on the part of government and commercialization of social service provision. Some authors and commentators have argued that PPP as another form of privatization is an avenue for governments to abdicate their social responsibilities to the private sector in the provision of key social services (Scott, 2004). This development, some authors (Bovaird, 2004) have also pointed out may result in diluting government's control over decision making, management supervision and accountability; and ultimately undermines competition between service providers in the long run.

Despite the concerns expressed above, in housing provision, PPP has gained currency in recent times on the premise that it promotes multi-stakeholders' participation; enhances productivity of the public-sector housing and reduces housing affordability challenges (Shelter Afrique, 2008). On this premise, we look at PPPs and Public Housing provision in Nigeria with emphasis on the institutional deficiencies that resulted in defective construction of the SGE.

## **2.2 PPPs and Public Housing in Nigeria**

Adequate housing remains a major problem in the cities of the south. In Africa, cities are growing at an unprecedented rate and there is rising pressure on government to house the people and provide infrastructure facilities, but in large part governments are unable to match demand with simultaneous provision of adequate housing and infrastructure (Ajanlekoko, 2001). The factors responsible are complex, interrelated and interconnected and range from inadequate financial resources to low capacity in the public sector to implement many projects (Aribigbola, 2008; Ndubueze, 2009). To deal with these challenges, new approaches that involve collaboration among an increasing number of stakeholders are resorted to (Bennett, 1998). PPP is one of the most promising forms of such collaboration (Ukoje and Kanu, 2014).

Nigeria has been grappling with huge housing deficit for the better part of the last century. The turn of the new century, however, has been a story from bad to worst. The country's housing shortfall has been put between 16 million units and 17 million units. Today, it is ironic that Nigeria with a population of about 170 million people is currently facing a national housing deficit of about 17 million units, and requires a minimum of additional one million housing units per annum to reduce the national deficit in order to avert a housing crisis in the country (Akuki, 2015).

With disparity between the provision, and demand for housing, basic sanitation and other vital urban services in cities of the developing countries increasing, PPP is presently being celebrated globally as a viable strategy for addressing the shortage of public services in cities in the developing world. The global recognition accorded PPP as an alternative to government provider approach is based on the notion that it promotes multiple stakeholders' participation in the provision of critical infrastructure(Pessoa,2006) and encourages efficient use of resources for improved service delivery at an affordable cost(Klijn and Koppenjan,2000). These apparent merits according to Jamali (2004) have prompted key international financial institutions, including the World Bank and international monetary fund to mount pressure on many developing countries to shift emphasis from state provision to liberalization and privatization of service provision.

In line with this trend, in 2005, the Federal Government of Nigeria, officially adopted PPP as a model for the delivery of projects and services in the country. Consequently, Ondo state, government initiated the SGE in a bid to meet the growing housing needs and encourage ownerships of landed properties by the public. The Estate, a Joint Venture-Public-Private Partnership between the Ondo State Government and Locke Homes was incepted in the year 2009 with the goal of providing affordable dwelling units to the low and middle class citizens of the state. SGE comprises of five different prototypes (starlet, starlet –deluxe, diamond, liberty and Deluxe). A breakdown of each existing prototype is presented in Table 1.

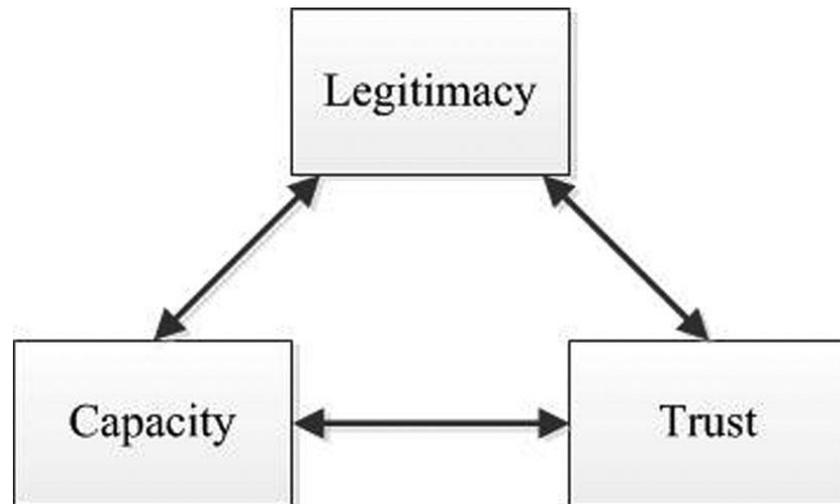
However, despite the construction of a total of 298 dwelling units across all the prototypes, several complaint about defective construction of the units as resulted in dissatisfaction amidst the residents of the estate. This necessitates a thorough investigation of the institutional arrangements used to procure the SGE. The next section examines the concept of defective construction and how it applies to the SGE.

<b>Prototype</b>	<b>Number</b>
<b>Starlet</b>	52
<b>Diamond</b>	130
<b>Liberty</b>	105
<b>Starlet-Deluxe</b>	10
<b>Deluxe</b>	1
<b>Total</b>	298

**Table 1.** Breakdown of housing prototype at SGE Source: field survey (2017)

### **2.3 PPP and Institutional Capabilities**

Previous research has shown that the institutional environment has an impact on the outcomes of PPP projects (Delhi et al., 2010). Recent work has confirmed that rather than overcoming institutional capacity constraints, PPPs require a variety of new types of institutional capacity (Jooste et al., 2011). In order to analyze the impact of the institutional environment, we categorize the existing regulative instruments into three "institutional capabilities" proposed by Mahalingam et al. (2011). These are: legitimization, trust, and capacity which serve as a framework for our research. We use this model to analyze the influence of the institutional environment on PPP projects outcome with the intention of identifying gaps in practice in the Nigerian housing sector. The categorization proposed by Mahalingam et al. (2011) serves as a means to delimit the institutional environment and characterize the institutional capabilities needed for PPP development so then we can identify deficiencies.



**Figure 1.** Institutional Capabilities Proposed by Mahalingam et al. (2011)

Legitimacy is a generalized perception or assumption that the actions of an entity are desirable, proper, or appropriate within some socially constructed system of norms, values, beliefs and definitions (Suchman, 1995). Legitimization concerns PPPs because these projects introduce private operators into services that were traditionally provided by governments, and require large financial commitments from private parties who expect long term returns for their investments (Jooste et al., 2011). Strategies to build legitimization include guaranteeing transparency, giving strategic information, and providing a stable political environment. Legitimization refers to the formal actions that promote the willingness of public and private actors to engage in PPPs.

Trust is a disposition and attitude relating to the willingness to rely on the actions of other actors, under the condition of contractual and social obligations with a prospective for collaboration (Smyth & Pryke, 2008). In this research, we analyze trust across the interfaces of the PPPs, specifically the formal mechanisms that foster trust between public and private actors by means of standards and mechanisms implemented by the government. Formal mechanisms can influence trust since standard rules and procedures allow them to establish a pattern of behavior to base their assessments and evaluations on others (Bijlsma-Frankema & Costa, 2005; Sitkin, 1995)making the relationships more predictable.

Capacity to undertake PPPs will strengthen the ability to structure and govern PPP projects, being essential for PPP development (Mahalingam, 2011). Launching a PPP project requires public agencies to adopt new roles and acquire specific expertise at several levels.

#### **2.4 Defective construction**

Defects according to Harris (2006) are faults that may reduce the durability, usefulness, or strength of a construction work. They are the unacceptable quality of a project which can be identified and remedied. Atkinson (1999) defines defective construction works as those which fell short of complying with the specific descriptions or requirements of the contract, especially any drawings or specifications, together with any implied terms and conditions as to its quality, workmanship, durability, aesthetics, performance or design. More importantly, in considering 'defects' as a matter of principle, work may be defective even if it has been carried out with all due skill and care but it fails to satisfy or meet a particular specification. For example, brickwork may be erected correctly but the wrong type or color of brick could have been used in breach of planning permission (Outlaw, 2011).

A construction defect, as defined by California Jury Instructions and cited by Pole (1997) is the: "failure of the building or any building component to be erected in a reasonably workmanlike manner or to perform in the manner intended by the manufacturer or reasonably expected by the buyer, which proximately causes damage to the structure."

Furthermore, the California State Assembly Bill, AB 2959, as cited in Pole (1997) stated that a construction defect would result from: Defective building materials or components; A violation of Building Codes at the time of construction;. Failure to meet professional standards for design at the time plans was approved; Failure to build according to accepted trade standards for good and workmanlike construction.

### 2.4.1 Classification of defective works

Defective construction works can be classified as follows:

1. Qualitative Defects: According to Kevin (2008, p. 2), qualitative defects can be categorized in various ways, including: Work (including design) or materials not of acceptable quality; Work (including design) or materials that are in themselves of acceptable quality, but which nonetheless do not conform with the specification or the design brief; and Work that is incomplete.

2. Patent and Latent Defects: Defects, whatever their qualitative nature can be patent or latent. “The fact that there may be different consequences means that it is important to be able to decide when a defect is patent or latent” (Barrett, 2008, p3). A patent defect is one that is detectable either at or before apparent practical completion or during the defects liability period. By contract, a latent defect is one which has been concealed in the works and may not become apparent for many years. The terms latent and patent are opposites. A patent defect is discoverable and may be open to view, exposed, manifest, evident or obvious.

A latent defect will exist before it is discovered as hidden or concealed flaws in the work. When a latent defect becomes manifest it ceases to be a latent defect and becomes patent. For the purpose of this study we focus on the patent defects and in particular we consider these two attributes as important to our study: defective building materials or components and failure to build according to accepted trade standards for good and workmanlike construction.

## III. METHODOLOGY

The research design employed for this work was the descriptive survey in which residents at SGE were randomly selected. The housing prototype covered in this research are: starlet, diamond, liberty and starlet-deluxe. The main research instrument used was a well –structured questionnaire containing closed ended questions with suggested answers measured in a Likert Scale. At the back of the survey was a space inviting respondents to provide comments about the SGE estate. Seventy percent of respondents provided additional information on their thoughts and concerns, and these written responses formed the basis of a qualitative data.

## IV. DATA PRESENTATIONS AND ANALYSIS

The data obtained is presented and analyzed as follows:

### 4.1 Existence of defective construction

The study sought to establish whether there are construction defects at SGE that would call for a review of the PPP institutional arrangements based on the perception of residents, as such the study was targeted at the occupants of this estate. The breakdown is presented in table 2 and 3.

Prototype	No distributed	No of response	% of response
Starlet	30	26	87
Diamond	80	74	93
Liberty	80	77	97
Starlet-Deluxe	10	08	80
<b>Total</b>	<b>200</b>	<b>185</b>	

**Table 2.** Distribution of questionnaires .Source: field survey (2017)

Table 2 shows a breakdown of the questionnaires from 185 respondents. Residents living in starlet prototype returned 87%, Diamond 93%, Liberty 97%, and Starlet-Deluxe 80%.

Response	No of response	% of response
Yes	180	97%
No	5	3%
<b>Total</b>	<b>185</b>	<b>100%</b>

**Table 3.** Existence of defects attributable to institutional deficiencies. Source: field survey (2017)

### 4.2 Defective building materials

An important feature of defective construction is the use of defective building materials or components. The study sought to find out if residents observed defective building materials in their dwellings.

Response	No of response	% of response
Yes	176	95%
No	9	5%
<b>Total</b>	<b>185</b>	<b>100%</b>

**Table 4.** Use of defective materials across the housing prototypes .Source: field survey (2017)

Table 4 shows that 95% of the respondents said “Yes” (agree) that there were deliberate use of defective building materials. While 5% said “No” (disagree). This shows that one criterion for defective construction has been fulfilled.

Another very important feature of defective construction is the failure to build according to accepted trade standards for good and workmanlike construction. As such, respondents were asked whether they are satisfied with the workmanship exhibited on their dwelling units.

Response	No of response	% of response
Yes	4	2%
No	183	98%
Total	185	100%

**Table 5.** Satisfaction on the workmanship. Source: field survey (2017)

The result in table 5 shows that 98% of the residents are not satisfied with quality of the workmanship. While only 2% indicated that they are satisfied. This shows that majority of the residents do not accept the trade standards exhibited. This confirms another criterion for defective construction.

**4.4 Reconciling Institutional capabilities with defective construction of SGE**

Some institutional factors linking PPP projects and its outcomes as obtained from the literature(Matoss-Castano et al., 2012), were presented to the respondents and they were asked to ranked them based on their importance on defective construction of the SGE. The results are presented in Table 6-8.

s/n	Factors	Frequency Responses				∑f	∑fx	Mean (x')
		1	2	3	4			
1.	Political champion	35	40	15	10	100	200	2.00
2.	Project portfolio	30	42	10	15	97	204	2.10
3.	PPP policies	29	40	12	13	94	197	2.10
4.	Public consultation	-	5	25	155	185	705	3.81

**Table 6.** Legitimization factors Source: field survey (2017)

*1=Not important; 2=Less important; 3=Important; 4=Very important*

Table 6 shows responses on the impact of legitimization on defective construction on a scale of 1to 4 ranging from Not important to Very important. The results shows that the factor which regard institutional capability as public consultation averaged 3.81, meaning the respondents regards it as very important factor that is lacking in the PPP arrangement of the SGE. Project champion averaged 1.60 meaning not important. Project portfolio 2.10 (less important).PPP policies averaged 2.10 meaning less important also. This shows that respondents have convergent opinions on the legitimization factors stimulating defective construction.

s/n	Factors	Frequency Responses				∑f	∑fx	Mean (x')
		1	2	3	4			
1.	Decision making departments	-	5	32	75	112	374	3.34
2.	Guidelines and documents	52	32	15	5	104	181	1.74
3.	Project development responsibility	35	22	43	5	105	228	2.17
4.	Established regulatory agency	47	50	2	1	100	157	1.57
5.	Project monitoring	-	-	10	175	185	730	3.95
6.	Cooperation platforms	60	23	8	7	98	158	1.61

**Table 7.** Trust factors Source: field survey (2017)

*1=Not important; 2=Less important; 3=Important; 4=Very important*

Table 7 show responses from the questionnaire on the impact of Trust on defective construction on a scale of 1 to 4 ranging from Not important to Very important. The result shows the factor (Project monitoring) averaged 3.9, meaning the respondents regard it as very important factor on reducing defective construction. Decision making departments 3.3(important), guidelines and documents (less important), project development responsibility 2.2 (less important), established regulatory agency 1.6(less important), cooperation platforms1.6 meaning less important. This shows that respondents have different opinions on the factors encouraging defective construction.

s/n	Factors	Frequency Responses				Σf	Σfx	Mean (x')
		1	2	3	4			
1.	In house PPP Knowledge	90	21	2	15	128	198	1.55
2.	Training programs-workshops	55	42	7	9	113	196	1.73
3.	Cross project knowledge	75	60	8	5	148	239	1.61
4.	Standard risk allocation mechanisms	102	25	25	1	153	231	1.51
5.	Type of contract	85	35	7	8	135	208	1.54
6.	State support funding	100	25	-	20	145	230	1.58
7.	Competitive bidding	1	-	24	160	185	713	3.85

**Table 8.** Capacity factors Source: field survey (2017).

*1=Not important; 2=Less important; 3=Important; 4=Very important*

Table 8 shows responses on the impact of capacity on defective construction on a scale of 1 to 4 ranging from Not important to Very important. The results show that the factor which regards capacity as competitive bidding averaged 3.85, meaning the respondents regard it as another very important factor that is lacking in the PPP arrangement of the SGE. In house PPP knowledge averaged 1.55 meaning less important. Training programs-workshops 1.73 (less important). Cross project knowledge 1.61 (less important). Standard risk allocation mechanisms 1.51 (less important). Type of contract 1.54 (less important). State support funding 1.58, also less important. This shows that the respondents also have convergent views on the capacity factors regarding defective construction of the SGE.

## V. CONCLUSION

### 5.1. Quantitative Data Analysis

The study found that:

1. Conditions necessitating the need to examine PPP institutional arrangements exist in the Nigeria housing sector.
2. Majority of the respondents (95%) agree that there was deliberate use of defective building materials at the SGE: this implies that the procuring government agency neglected their oversight function of project supervision. Also, the results confirm that 98% of the residents are dissatisfied with the quality of the workmanship and trade standards exhibited on the dwelling units. According to Koppenjan and Enserink (2009, p.286) "local regulations and contracts may create legal monopolies by giving private firms exclusive rights to construct and operate urban infrastructures during long-term concession periods." Thus, PPP in public infrastructure may result in market failures (Ahmed and Ali, 2004; Mao et al. 2005). Market failures lead to rent-seeking or opportunistic behavior on the part of both public and private parties: parties pursue their self-interests rather than the objectives that underlie the choice of PPPs in housing delivery.
3. Out of the various institutional factors as outlined by Mahalingam et al. (2011), the most important ones stimulating defective construction are the lack of: public consultation (3.81); competitive bidding (3.85); and project monitoring (3.95).

### 5.2. Qualitative Data Analysis

This section contains a summary of the views as revealed in a qualitative comment provided at the back of our survey of SGE residents. Some comments from respondents include:

*"Entering into sole-sourced PPP housing projects carries elevated risks of corruption and poor quality delivery, this is evident virtually in all the erected buildings."*

*"In terms of the process, a major criticism of the plan is that details of SGE including crucial documents and reports were not made available to the public."*

*Substantive and early public consultation were undermined by the decision to adopt an unsolicited and sole-sourced bid, allowing little or no possibility for the public to participate in and shape the vision of the SGE."*

*"The lack of a competitive process denies the residents a chance to see, hear, and debate what is possible in addition to assessing the design and proposed construction quality."*

*"The incidence of defective construction can be minimized by the use of quality building materials and finishes, competent workmen, and adequate supervision."*

*"Most of the defects can be attributed to poor building materials and poor workmanship and inadequate supervision"*

*"Proper construction management and quality control measures are required during execution of projects, these are lacking in the housing stocks at SGE."*

*“More attention should be focused towards activities of the private sector, with a view to curbing their excesses.”*

*“Government supervision was practically non evident”.*

*“This is another means by the governor to financially empower some of his allies.”*

*“The private partner has been given too much freedom to operate.”*

*“The state government seems bereft of adequate knowledge of what PPP entails and lack of expertise is obvious”.*

## **VI. CONCLUSION AND RECOMMENDATION**

### **6.1 Conclusions**

In this study, an attempt was made to gauge the perception of residents as regards the institutional deficiencies that resulted in defective construction of SGE. First the concept of institutions with regards to PPP was introduced. This was followed by closely examining PPPs particularly in the context of housing delivery. Thereafter, a review of defects in buildings and identification of critical defect factors considered in the study were arrived at. Three institutional capabilities: legitimacy; trust; and capacity were then operationalized and used to assess residents' perception of the link between PPP institutional arrangements and the defects encountered at the SGE. Thereafter, a qualitative response from the residents were also captured.

Based on the results, the following conclusions were arrived at. The PPP institutional arrangement in Ondo State is deficient; there is no enabling environment in the form of public consultation; the overall perception of the SGE residents has revealed that project monitoring was nonexistent with the private partners let alone to carry out construction unchecked. Also, lack of competitive bidding has further heightened accountability issues as with most PPP projects.

Entering into a sole-source process can save government time and money and may alert government to an unrealized opportunity for PPP. However, sole sourcing can encourage corruption through lack of transparency, and the cost benefits to competitive bidding are lost.

### **6.2. Recommendations**

Based on the results obtained in this research, the following are recommended.

1. A robust public consultation practices need to be institutionalized as part of regulations guiding PPP procurement practices in the Nigerian housing sector.
2. Asymmetrical dependency relations between local regulators and private service providers should be prevented as this may result in agency capture- that is regulators having difficulties representing the public interests in dealing with private parties.
3. Besides strengthening resources and regulations for the repression of corruption, preventive measures are important. For example, prohibiting intimate relations between staff members of the regulators' office and the private provider, implementing codes of conduct and training programs, and developing a strong corporate spirit supported by clear set of values for the public professionals.

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