Public-private partnership for housing construction projects a comparative analysis of the success factors between Malaysia and Nigeria

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Abstract. Public-private partnership (PPP) has become a popular strategy for housing construction projects due to financial resource constraint and inefficiency of the public sector particularly in the developing countries of the world. However, numerous studies have attributed the success of PPP projects to the contextual peculiarities of different administrative settings. This case study research aims to undertake a comparative analysis of the Critical Success Factors (CSFs) of PPP for housing construction projects between Malaysia and Nigeria. The study reveals that while “equitable risk allocation”, “stable political system”, and “reputable developer” are the most critical success factors in Nigeria, “action against errant developer”, “consistent monitoring”, and “house buyer’s demand” are found to be the most important factors that influenced the success the PPP housing construction projects in Malaysia. The findings of the study revealed the contextual predictors that influences the success of PPP for housing construction in the two countries. The authors concluded that although the PPP strategy was applied in housing construction projects in the two cases examined, the comparative importance of the CSFs for Nigeria differs from that of Malaysia due to differences in contextual peculiarities in the two countries.

1. Introduction

Rapid urbanization and urban growth particularly in the developing world have extremely outstripped the capacity of most governments in the provision of adequate housing and associated infrastructure. Asia and sub-Saharan African regions, which are incidentally the poorest regions in the world [1] experience housing and infrastructure shortage which the public sector cannot provide alone. Consequently, many countries in those regions adopted public-private partnership model for housing and urban development projects.

However, the observed mixed results in the application of PPP in different countries of the world has prompted investigation regarding the factors that influence the performance of PPP projects. An extensive literature towards explaining the success of PPP projects have focused on a specific country or a specific
sector of PPP projects. For this reason, therefore, there is a dearth of cross-country comparative analysis of the success factors of PPP model application.

This paper undertook a comparative analysis of the CSFs between Nigeria and Malaysia with a view to explaining the contextual issues that influenced the performance of PPP housing construction projects in the two countries. The comparative analysis provides contextual evidence that underlies the influence of the CSFs of PPP housing construction projects in the two countries.

2. Material and method

2.1. PPP housing projects in Nigeria and Malaysia

The study examined the application of PPP for housing construction projects in Nigeria and Malaysia. The selection of Nigeria and Malaysia is based on the level of economic, political, and PPP development in the two countries. Both Nigeria and Malaysia are developing nations and share similarities and differences with regards to their economic and political development. For instance, the two countries have undergone major economic changes since independence in the late 1950s. Nigeria and Malaysia also evolved from poor agricultural economies in the 1970s, into a rich oil-dominated and industrial sector based economies respectively. However, while political instability had bedevilled Nigeria with scores of military coups and counter-coups for twenty-five years since independence [2], Malaysia has enjoyed political stability since independence in 1957 with one political party in power and twelve uninterrupted general elections [3].

Similarly, Nigeria and Malaysia have made enormous progress in the application of public-private partnership particularly in the housing sector. Both countries adopted a PPP model in which the private developer undertakes all development risks (design, construction, and finance), provision of internal infrastructure, and houses for various income groups. The government, on the other hand, assumes the responsibility of allocating land to private developers, provide primary infrastructure, and specify output parameters. However, unlike the optimism in the success in the case of Malaysia, appraisal studies have contemplated doubt regarding the achievement of the desired objectives of private sector participation in housing delivery in Nigeria [4].

In line with the private sector driven housing policy in Nigeria, the Federal Capital Territory Administration (FCTA) Abuja introduced the public-private partnership (PPP) program to reduce housing deficit in the territory. However, the PPP housing scheme recorded little success due to lack of adequate planning and implementation. With a success rate of 32.25 % [5], the PP housing construction scheme could not deliver the much-desired housing units to the residents of the Federal Capital Territory (FCT), Abuja.

Similarly to other developing countries, Malaysia was poor economically at independence. However, the adoption of New Economic Policy (NEP) transformed the economy by attracting international growth in the 1980s and 1990s. According to the World Bank [6], Malaysia is classified as an upper middle-income economy with per capita income of US $13,740. The demographic changes coupled with the adoption of the New Economic Policy promoted rapid industrial and economic growth. The economic growth, in turn, caused a massive rural-urban migration, particularly among the “Bumiputera” (sons of the soil), which accounts for 75% of the migration [7].

The Malaysian government adopted a public-private partnership strategy to cater for the housing demand of the increasing low-income population in the country during the third Malaysia plan. Since the adoption of PPP, the private accounts for over 90% of housing provision and a greater proportion of low-cost housing in Malaysia [8].
2.2. Critical success factors of public-private partnership projects

Critical success factors are those factors whose existence significantly enhance the success of a project and which, if not taken seriously, will lead to the failure of a project [9]. The CSF approach is, therefore, an attempt to isolate vital areas that are essential for management or projects to achieve success.

Akintoye [10] identified success factors that contribute to the achievement of the best value in PFI projects in the UK. Qiao [11] identified CSFs for Build, Own and Transfer (BOT) in China. Jefferies [12] identified CSFs from the reflection of an Australian sports stadium project. In a study of CSFs for PPP projects at international level, Zhang [13] identified 5 main classes of CSFs. Chou and Pramudawardhani [14] undertook a cross-country comparison of key drivers and critical success factors of PPP. Wibowo and Alfen [15] identified government-led CSFs in PPP infrastructure projects in Indonesia. The review of literature identified and adopted a total of 18 CSFs for the study (Table 1). The 18 CSFs are adopted due to the frequency of their being cited by numerous authors [16,17].

| CSFs                                           | Authors                                               |
|------------------------------------------------|-------------------------------------------------------|
| Transparent procurement process                | Li et al. [16], Helmy [18], Chan et al [19], [20]    |
| Competitive procurement process                | Hardcastle et al. [21], Hemming [22], Atmo and Duffield [23] |
| Good governance                                | Hayllar [24], Helmy [18]                              |
| Well-organized public agency                   | Scharle [25], Hemming [26]                           |
| Trust and openness between parties            | Ong and Lenard [27], Jamali [28]                     |
| Stable political system                        | Chan et al. (19), Babatunde et al. [29]              |
| Stable economic system                         | Helmy [18], Chan et al. [19], Babatunde [29]        |
| Efficient legal framework                      | Li et al. [16], Abdul-Aziz and Kassim [30], Babatunde et al. [29] |
| Adequate financial market                      | Hwang et al. [31], Ismail [32], Li et al. [16], Babatunde et al. [29] |
| Community support                              | Heinke and Wei [33], EFCA [34]                       |
| Government guarantee                           | Hemming [22], Jamali [35], Chan et al. [9]           |
| Efficient approval process                     | Jefferies et al. [11], Abdul-Aziz and Kassim [30]   |
| Consistent monitoring                          | Abdul-Aziz and Kassim [30]                           |
| Action against errant developers               | Abdul-Aziz and Kassim [30]                           |
| Equitable risk allocation and sharing          | Thomson et al. [36], Li et al. [16], Zhang [12], Wibowo and Alfen [15] |
| Technical competence                           | Jefferies [12], Zhang [13], Chou and Pramudawardhani [14] |
| Financial capability                           | Jefferies [12], Zhang [13]                           |
| Experience in partnering                       | Li et al. [16]                                      |
2.3. Methods
A sequential mixed method research was employed to identify and ranked the CSFs of PPP housing construction project in Nigeria. The ranking was later compared with the ranking of CSFs by previous study for PPP housing project in Malaysia. The mixed method involves the initial focus group (FG) interview to identify the CSFs followed by a questionnaire survey to rank the identified CSFs of the PPP housing project in Abuja Nigeria. The FG interviewees were purposively selected based on their relevant experience in PPP projects. The interview verified fifteen CSFs which were subsequently ranked using a questionnaire survey.

Convenience sampling was used to select both public and private stakeholders who have participated in the PPP housing project in Abuja, Nigeria. Based on the convenience sampling, 100 questionnaires (20 each) were administered to the staff of the five public sector departments associated with the PPP housing development in Abuja. Similarly, 5 questionnaires each were administered to 60 selected private sector companies giving a total of 400 administered questionnaires. The respondents were asked to rate the relative importance of the fifteen CSFs to the success of PPP housing construction project in Nigeria, and the data was analyzed using the Analytical Hierarchy Process (AHP) with the aid of Expert Choice 2000 software.

3. Result and Discussion
The study ranked the relative importance of the CSFs of PPP housing construction project in Abuja, Nigeria and then compared the ranking with that of similar CSFs by a study in Malaysia. The adoption of similar success factors is to allow for apple-to-apple comparison of the importance of the CSFs in the two countries.

3.1. Ranking of the CSFs of PPP housing construction project in Nigeria
Table 2 indicate the relative importance of the CSFs in influencing the success of the PPP housing project in Abuja, Nigeria.

| CSFs                         | Priorities | Normalized | Ranking |
|------------------------------|------------|------------|---------|
| Equitable risk allocation    | 0.118      | 1          | 1st     |
| Transparency and good governance | 0.082     | 0.695      | 2nd     |
| Stable political system      | 0.077      | 0.653      | 3rd     |
| Competent private sector     | 0.071      | 0.602      | 4th     |
| Stable economic system       | 0.06       | 0.508      | 5th     |
| Competitive procurement process | 0.058     | 0.492      | 6th     |
| Government guarantee         | 0.049      | 0.415      | 7th     |
| Availability of financial market | 0.045     | 0.381      | 8th     |
| Efficient legal framework    | 0.041      | 0.345      | 9th     |
| Well-organized public agency | 0.036      | 0.305      | 10th    |
| Efficient approval process   | 0.033      | 0.28       | 11th    |
| Trust and openness between parties | 0.031  | 0.263      | 12th    |
| Community support            | 0.024      | 0.203      | 13th    |
| Consistent monitoring        | 0.023      | 0.195      | 14th    |
| Action against errant developers | 0.018    | 0.153      | 15th    |
The factors ‘Equitable risk allocation’, ‘transparency and good governance’, and ‘stable political system’ are the 3 top ranked success factors that influence the success of PPP housing project Nigeria. The factors are considered very important due to the nature of procurement process in Nigeria which is lacks transparency and good governance in the PPP procurement and allocation of responsibilities to the parties involved in the partnership. Highly influential private sector companies got more land allocation under the scheme [37] based on personal acquaintances with FCT minister rather than based on due process [38].

Similarly, the factor ‘stable political system’ is ranked high (0.077) due to relative instability of the political system in Nigeria with regards to frequent changes in FCT ministers and in the PPP policy. This frequent changes in government’s ministers and policies put the private developers in doubt with regards to the commitment of the incoming administration to meet contractual obligations undertaken by the previous ministers.

The 3 least ranked factors in Nigeria are ‘community support’ (0.024), ‘consistent monitoring’ (0.023), and ‘action against errant developers’ (0.018). The factor ‘community support’ is regarded less relevant in Nigeria due to an autocratic system of government and the land ownership policy in Nigeria. The Land use Act of 1979 has assigned all land to the government, thereby putting FCTA in control of land ownership in Abuja. The low ranking of the factors ‘Consistent monitoring’ and ‘action against errant developers’ is because the FCT PPP guidelines has made adequate provisions for monitoring and the FCTA has sanctioned errant developers by demolishing houses that have violated the terms of the partnership. Ranking of the CSFs of PPP housing construction project in Malaysia.

3.2. Ranking of the CSFs of PPP housing construction project in Nigeria
Abdul-Aziz and Kassim [30] examined the effects of the success factors on PPP housing delivery in Malaysia (Table 3).

| Critical Success Factors                              | N   | Mean | Ranking |
|-------------------------------------------------------|-----|------|---------|
| Action against errant developers                      | 14  | 4.5  | 1st     |
| Consistent monitoring                                 | 19  | 4.47 | 2nd     |
| House buyers’ demand                                  | 17  | 4.42 | 3rd     |
| Refutable developer                                   | 17  | 4.41 | 4th     |
| Robust and clear agreement                            | 16  | 4.31 | 5th     |
| Constant communication                                | 17  | 4.24 | 6th     |
| Developer’s profit sharing accountability             | 13  | 4.23 | 7th     |
| Developer’s social accountability                     | 15  | 4.13 | 8th     |
| Public sector negotiating skills                      | 17  | 4.12 | 9th     |
| Public sector adequate negotiation staff              | 17  | 4.11 | 10th    |
| Compatibility between partners                        | 19  | 4.1  | 11th    |
| Realistic projection                                  | 18  | 4.06 | 12th    |
| Competition                                           | 16  | 4   | 13th    |
| Amples time to evaluate proposal                      | 17  | 3.88 | 14th    |
| Political influence                                   | 12  | 3.33 | 15th    |

Source: Abdul-Aziz and Kassim (2011)

The authors found that there are seven most critical factors that have a significant effect on the success of the PPP housing project in Malaysia. The factors are “action against the errant developer”, “consistent
monitoring”, “house-buyers’ demand, “reputable developer”, “constant communication”, “robust contract agreement”, and “developer’s profit sharing accountability”.

3.3. Comparison of the ranked CSFs in Nigeria and Malaysia

The ranking of CSFs in Nigeria and Malaysia were compared to explain the similarities and differences between the two countries. Although the CSFs for Nigeria are not identical with those in Malaysia, the factors adopted by the authors compliment those adopted by Abdul-Aziz and Kassim [30] for Malaysia. Figure 1 compares the ranking of the top ranked factors in Nigeria and Malaysia.

![Figure 1. Ranking of the CSFs in Nigeria and Malaysia](image)

3.4. Top ranked CSFs in Nigeria and Malaysia

While certain factors are considered very critical for the success of PPP housing projects in Nigeria, the relative importance of the same factors is less in Malaysia as follows:

3.4.1. Reputable developer

The factor “reputable developer” was ranked moderately important in the fourth position in the two countries. The public-private partnership is a contractual relationship where a private party takes responsibility for all or part of government’s functions. Therefore, the existence of a strong private consortium is essential towards achieving project success.

In the case of Nigeria, respondents feel the factor is important because of inadequate competent construction companies in Nigeria. As observed by [39], only a few allocations were made to competent companies with significant financial strength. Most private housing developers that participated in the PPP
housing scheme in the FCT do not have all the required professionals competence [5]. Similarly, respondents in Malaysia ranked the factor moderately high importance due to the importance attached to strong private developers in the successful delivery of PPP projects. Public agencies in Malaysia’s housing project had to engaged only reputable developers to minimise failure [29].

3.4.2. Equitable risk allocation
While appropriate risk allocation and sharing between partners is ranked the first top success factor in Nigeria, it was ranked fifth in Malaysia. Although Mohammed [40] discovered that the public sector preferred to retain macro-level risks (political, legal and social) risks in Nigeria, the majority of such macro-level risks were shifted to the private developers in the PPP housing project in Nigeria. This inequitable risk sharing has limited the success of the housing project and thus ranked the factor high.

On the contrary, Malaysia had maintained equitable risk sharing between government and private developers. As reported by Abdul-Aziz and Kassim [30], the public agencies in Malaysia did not overburden their private partners which made the private developers took their responsibilities diligently. The existence of a “robust and clear agreement” regarding clear definition and allocation of risk and responsibilities produced a highly positive outcome in the case of PPP housing project in Malaysia. For this reason, the factor was ranked of relatively moderate importance.

3.4.3. Community support/developers' social accountability
The factor “social support/developers' social accountability” was ranked relatively lower by respondents in Nigeria and Malaysia in the eighth and the thirteenth position respectively. The PPP housing policy in Malaysia considered the factor important and had made provision for special quota for the “bumiputera” and low-cost housing as part of the developer’s social obligation.

The low ranking of this factor in Nigeria is due to the land use and ownership policy in Nigeria. The Federal Capital Development Authority Act provided for the relocation of existing local communities, and there was no such special quota provision for the “locals” in the case of Nigeria’s PPP. Although there is provision for all categories of income group in the PPP agreement, developers built very costly houses beyond the means of the average resident [41].

3.4.4. Transparency and good governance
‘Transparency and good governance’ is the second top-ranked factor in Nigeria. Good governance is important in Nigeria because the issue of lack of transparency and unethical behavior have adversely affected procurement processes in the country. The tendency for government officials in Nigeria to be corrupt is very high, due to weak governance and institutions [42].

The factor “transparency and good governance” was not clearly spelt out in the list of ranked factors in Malaysia. However, the factor has complementarity with “robust and clear agreement” as a transparent process will provide clear project brief explaining client requirements and the sharing of risk. The factor “robust and clear agreement” was ranked relatively lower in the fifth position in Malaysia as the government had taken steps to ensure transparency in PPP procurement system.

3.4.5. Stable political system
“Stable political system”, ranked at the third position, is highly important in Nigeria but relatively less important in Malaysia (15th) position. Political instability or frequent changes in public policy can hinder the implementation of PPP projects [30]. Political instability and changes in PPP housing policies in Nigeria has led to the suspension and the subsequent revocation of some land allocations under the PPP housing scheme in 2008 [43]. On the contrary, the same factor is considered less important in Malaysia due to the
fact that the current political situation Malaysia is stable because the Malaysian government is in support of PPP [30].

3.4.6. Stable economic system
This factor was ranked moderately in the fifth position in Nigeria because the success of PPP projects in African countries is found to be strongly correlated with macroeconomic indices such as the region’s GDP and inflation [44]. Although this factor was not among the factors listed for Malaysia, the authors find some complementarity with the factor “house-buyer’s demand” as a “stable macroeconomic environment” in a country will lead to reasonable certainty of the market that allows for meeting the long-term demand of the house buyers.

3.4.7. Competition
The factor “competition” in the procurement process is ranked sixth in Nigeria but was ranked relatively very low in the thirteen position in Malaysia. Evidences suggest that political influence and favouritism have played important role in deciding which firms get the largest allocations in Nigeria [35].

3.4.8. Availability of financial market/house buyer’s demand
The factor “financial market/house buyer’s demand” was ranked seventh in Nigeria but relatively higher in the third position in the case of Malaysia. Although the financial market in Nigeria is weak, there is an established demand for housing in Nigeria which makes the factor of moderate importance. However, in Malaysia, the respondents feel that the factor is very important the factor brought impacted positively to the success of PPP housing project in the country [30].

3.4.9. Action against errant developer
While the factor “action against errant developers” is rated the most important success factor in Malaysia, the same factor was rather unimportant in Nigeria, ranked in the eighteenth position. In Malaysia’s PPP housing project, when public agencies hesitate to take prompt action, private developers delay completion. Conversely, the factor is less important in Nigeria since private sector housing developers did not bear much loss from the demolition since they engaged in subdivision and selling plots to individuals rather than building houses [43].

3.4.10. Consistent monitoring
Consistent monitoring is ranked second most important success factor for in Malaysia, but respondents in Nigeria ranked it in the seventeenth position. The provision for consistent monitoring, as a control mechanism, in housing PPP contracts in Malaysia allowed the public agencies to monitor the performance of private partners and ensured that they did not deviate from the agreements regarding agreed output and behaviour [30].

3.4.11. Trust/communication between parties
“Trust/communication between partners” is ranked moderately in the sixth and eleventh positions in Malaysia and Nigeria respectively. The ability to build and maintain a deep level of trust between partners is fundamental to the successful functioning of a partnership in both countries [45].

4. Conclusions
This paper analysed the similarities and differences in the ranking of the CSFs of PPP for housing projects in different administrative jurisdictions. While the respondents in Nigeria are more concerned about project environment-related factors, the respondents in Malaysia favored the factors relating to the “working” of
the partnership. In Nigeria, “equitable risk allocation”, “stable political system”, and “reputable developer” are the most critical CSFs that influence the success of the PPP housing project. The study concludes that lack of transparency in the procurement system, frequent changes in public policy and government ministers, poor economic condition, poor governance, corruption, weak institutions, and incompetent private sector are the contextual peculiarities in Nigeria that influence the extent of contribution of the CSFs. In contrast, the existence of relative political stability, sound government policy, and strong macroeconomic conditions attracted strong private partners in the country.

The authors concluded that the relative importance of the CSFs for Nigeria differs from that of Malaysia due to differences in contextual peculiarities between the two countries. The import of the study is in providing a more robust evidence regarding the relative importance of CSFs of PPP projects. The study, therefore, reinforces the observation by [46] that although the concept, process, and key principles of PPP are essentially identical, many aspects of it are country-specific.

The findings of the study shall assist in widening the understanding regarding the explanatory factors that influence the success of PPP housing projects that remain poorly understood particularly in the context of developing countries.

5. References
[1] United Nations. World Urbanization Prospects: The 2014 Revision, Highlights New York; 2014
[2] Fagbadebo O. Corruption, Governance and Political Instability in Nigeria African J Polit Sci Int Relations 2007;1(2):028–37
[3] Thaib L Facilitating Sustainable Political Stability: Malaysia’s Experience. J Polit World Aff. 2012;1(1):19–29
[4] Ibem EO, Aduwo EB. Public-Private Partnerships (PPPs) in Housing Provision in Ogun State, Nigeria: Opportunities and Challenges In: 4th West Africa Built Environment Research (WABER) Conference, 24-26 July 2012 Abuja, Nigeria; 2012 p 653–62
[5] Kanu KU Appraisal of the Implementation of Mass Housing Programme in the FCT, Abuja. Ahmadu Bello University, Zaria, Nigeria; 2013
[6] World Bank World Development Report 2010: Development and Climate Change. Washington DC; 2010
[7] Agus MR Malaysia In: Agus MR, Doling J, Lee DS, editors Housing systems in South and East Asia. New York: Palgrave Macmillan; 2002 p 127–45
[8] Salleh AG Neighbourhood factors in private low-cost housing in Malaysia Habitat Int 2008;32(4):485–93
[9] Toor S, Ogunlana SO Construction professionals' perception of critical success factors for large-scale construction projects Constr Innov Information, Process Manag 2009;9(2):149–67
[10] Akintoye A, Hardcastle C, Beck M, Chinyio E, Asenova D Achieving best value in private finance initiative project procurement Constr Manag Econ 2003 Jul;21(5):461–70
[11] Qiao L, Wang SQ, Tiong RLK, Chan T. Framework for Critical Success Factors of BOT Projects in China J Proj Financ. 2001;7(1):53–61
[12] Jefferies M, Gameson ROD, Rowlinson S. Critical Success Factors of the BOOT Procurement System: Reflections from the Stadium Australia Case Study Eng Constr Archit Manag. 2002;9(4):352–61
[13] Zhang X. Critical Success Factors for Public–Private Partnerships in Infrastructure Development J Constr Eng Manag 2005 Jan;131(1):3–14
[14] Chou J, Pramudawardhani D Cross-country comparisons of key drivers, critical success factors and
risk allocation for public-private partnership projects Int J Proj Manag 2015 Jan;33(5):1136–50
[15] Wibowo A, Alfen HW Government-led critical success factors in PPP infrastructure development. Built Environ Proj Asset Manag 2015;5(1):121–34
[16] Li B, Akintoye A, Edwards PJ, Hardcastle C. Critical success factors for PPP/PFI projects in the UK construction industry Constr Manag Econ 2005 Jun;23(5):459–71
[17] Cheung E, Chan APC, Kajewski S. Factors contributing to successful public private partnership projects: Comparing Hong Kong with Australia and the United Kingdom. J Facil Manag 2012;10(1):45–58
[18] Helmy MA Investigating the Critical Success Factors for PPP Projects in Kuwait Royal Institute of Technology, Stockholm; 2011
[19] Chan APC, Lam PTI, Chan DWM, Cheung E, Ke Y. Critical Success Factors for PPPs in Infrastructure Developments: Chinese Perspective J Constr Eng Manag. 2010 May;136(5):484–94
[20] Liu T, Wang Y, Wilkinson S. Identifying critical factors affecting the effectiveness and efficiency of tendering processes in Public-Private Partnerships (PPPs): A comparative analysis of Australia and China Int J Proj Manag 2016;34(4)
[21] Hardcastle C, Edwards PJ, Akintoye A, Li B. Critical Success Factors for PPP / PFI Projects in the UK Construction Industry: A Factor Analysis Approach. Constr Manag Econ 2005;23(5):1–9
[22] Hemming R. Public-Private Partnerships In: Realizing the Potential for Profitable Investment in Africa Tunis, Tunisia: Organized by the IMF Institute and the Joint Africa Institute; 2006 p 15
[23] Atmo G, Duffield C. Improving investment sustainability for PPP power projects in emerging economies Value for money framework. Built Environ Proj Asset Manag 2014;4(4):335–51
[24] Hayllar MR. Public-private partnerships in Hong Kong: Good governance the essential missing ingredient? Aust J Public Adm 2010;69
[25] Scharle P. Public-Private Partnership (PPP) as a Social Game. Innov Eur J Soc Sci Res. 2002 Sep;15(3):227–52
[26] Hemming R. Public-Private Partnerships, Government Guarantees, and Fiscal Risk Washington; DC; 2006
[27] Ong HC, Lenard D. Can Private Finance Be Applied in the Provision of Housing In: FIG XXII International Congress Washington, D C; 2002. p 13
[28] Jamali D A. Public-Private Partnership in the Lebanese Telecommunications Industry: Critical Success Factors and Policy Lessons Public Work Manag Policy 2004 Oct 1;9(2):103–19
[29] Babatunde SO, Opawole A, Akinsiku OE. Critical success factors in public-private partnership (PPP) on infrastructure delivery in Nigeria 2012;10(3):212–25
[30] Abdul-Aziz AR, Kassim PSJ. Objectives, success and failure factors of housing public e private partnerships in Malaysia Habitat Int. Elsevier Ltd; 2011;35(1):150–7
[31] Hwang B-G, Zhao X, Gay MJS. Public private partnership projects in Singapore: Factors, critical risks and preferred risk allocation from the perspective of contractors Int J Proj Manag 2013 Apr;31(3):424–33
[32] Ismail S. Critical success factors of public private partnership (PPP) implementation in Malaysia. Asia-Pacific J Bus Adm 2013;5(1):6–19
[33] Heinke GW, Wei JKC. Consultancy to Examine and Disseminate Innovative Approaches to Financing of Initiatives such as Sustainable Infrastructure and Building, Planning, Design, Construction and Operation for Asia Pacific Economic Co-operation (APEC) 2000
[34] EFCA Project Financing Sustainable Solutions: Re-Assessing the Priorities Adding Value Through Innovation [Internet] Geneva; 2001 Available from: www.efacnet.org/

[35] Jamali D Success and failure mechanisms of public private partnerships (PPPs) in developing countries Int J Public Sect Manag 2004;17(5):414–30

[36] Thomson C, Goodwin J, Yescombe E Evaluation of PPP projects financed by the EIB. Eur Invest Bank 2005;

[37] Umoh N Exploring the Enabling Approach to Housing through the Abuja Mass Housing Scheme. Massachusetts Institute of Technology; 2012

[38] Abdullahi BC, Abd-Aziz NA. Nigeria’s Housing Policy and Public-Private Partnership (PPP) Strategy: Reflections in Achieving Home Ownerships for Low-Income Group in Abuja, Nigeria. In: 22nd International Housing Research Conference Istanbul; 2010 p 4–7

[39] Ukoje JE, Kanu KU Implementation and the Challenges of the Mass Housing Scheme in Abuja , Nigeria Am J Contemp Res. 2014;4(4):209–18

[40] Mohammed IY, Bala K, Kunya SU. Risk Allocation Preference in Publi-Private Partnership Infrastructure Projects in Nigeria J Eng Appl Sci 2012;4:77–88

[41] Abubakar IR Abuja city profile. Cities. 2014;41:81–91

[42] Aigbavboa CO, Liphadzi M, Thwala WD. An exploration of public private partnership in infrastructure development in South Africa. In: Laryea S, Ibeg E (Eds), editors. Proceedings of the 8th Construction Industry Development Board (CIDB) Postgraduate Conference, University of the Witwatersrand, Johannesburg, South Africa Johannesburg, South Africa; 2014. p. 101–9.

[43] Ibrahim UJ, Kwankur TG The Challenges of Housing Development and Needs in Abuja Nigeria Rome, Italy; 2012

[44] Li B, Akintoye A An Overview of Public-Private Partnership. In: Akintoye A, Beck M, Hardcastle C, editors. Public-Private Partnerships. Oxford, UK: Blackwell Publishing Inc; 2003 p 1–30

[45] UN-HABITAT. Public-private partnerships in housing and urban development. Nairobi: UN-HABITAT; 2011 36 p

[46] Zhang X, Chen S A systematic framework for infrastructure development through public private partnerships. IATSSR. International Association of Traffic and Safety Sciences; 2013;36(2):88–97