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Barriers and Benefits of Post-Occupancy Evaluation of Public-Private Partnership Delivered Housing in Lagos, Nigeria

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ABSTRACT

Previous studies have established the benefits and barriers of post-occupancy evaluation without empirically assessing the impact. This study filled this gap by empirically examining the barriers and benefits of post-occupancy-evaluation (POE) of public-private partnership-delivered housing with the view of integrating post-occupancy evaluation into the property development process. The study employed a survey and quantitative research design. Data for the study were gathered through questionnaires administered to the public-private partnership housing scheme officers. Findings from the study revealed that the associated cost of post-occupancy evaluation is the major barrier of post-occupancy evaluation with a WMS of 4.481 and minimization of maintenance cost is the major benefit of post-occupancy evaluation with a WMS of 4.476. It was also revealed that the benefit of post-occupancy-evaluation integration into the property development process outweighs its barrier. The study proposes the integration of post-occupancy evaluation into the public-private partnership property development process.

Keywords: Benefits, Barriers, POE, PPP, Housing

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INTRODUCTION

Public-private partnership is developing nations' most adopted housing delivery model (Ibem & Aduwo, 2012). The scholars posited further that the housing delivery model provides a platform for public and private sector participation in housing delivery. Ahmed and Bin Sipan (2019) ascribed the lack of funds and the increasing financial obligations of the government as the major motivating factors for adopting the public-private partnership housing delivery model in most developing nations. In addition to this identified benefit of the public-private partnership housing delivery model, there are other benefits of public-private partnership housing delivery. Mohamad and Johar (2018) identified the following

as the benefits of PPP in housing delivery; risk diversification, effective procurement procedure, technical competency synergy, and provision of an enabling environment by the government. Also, Brzozowska (2006) identified the following as the benefits of public-private partnership; opportunity for the government to get involved in other public investments, transfer of technologies, sharing of risk, guarantee of service for a longer time, reduction of political influence, and increase in transparency in the delivery process. All these identified benefits of the public-private partnership housing delivery model do not make the public-private partnership a perfect model or the delivered housing units free from defects. The non-perfection of the public-private partnership housing delivery model necessitates a feedback mechanism in the housing delivery process.

Adeogun and Taiwo (2011) established that public private partnership housing delivery process in Nigeria involves the following stages; conception or demand for the project, site identification, preliminary development appraisal, development program, appointment of professional team, contract award, actual construction, completion and disposal of project and profit sharing. The scholars posited further that a scheme officer is appointed for the effective management of the delivered housing units. It can be inferred from these established public-private partnership housing delivery processes that the stakeholders are less concerned with feedback on the delivered housing units. Integration of feedback in the public-private partnership housing delivery process will be in the form of post-occupancy evaluation of the delivered housing units. Hassanain et al. (2023) identified post-occupancy evaluation as the performance evaluation of a delivered building with specific emphasis on the evaluation of the technical, functional, and behavioral aspects of the building. Different scholars have conducted post-occupancy evaluations of different residential properties which include; social housing (Ziama & Li, 2018; Iroham et al., 2025a), green building (Olanrewaju & Chong, 2021), multi-tenanted residential property (St-Hilaire, 2013), mass housing (Nwankwo et al., 2014; Iroham et al., 2024). However, there is a paucity of literature on post-occupancy evaluation of public-private partnership-delivered housing units.

Previous studies have established the benefits and barriers of post-occupancy evaluation. Zimmerman and Martin (2010) identified the benefits of post-occupancy evaluation as follows: improvement on functionality of the building, reduction in operating cost, feedback to design, competitive advantage, and impacting change. The scholars also identified the barriers as the following; standard practice, split incentives, lack of indicators and benchmarks, owner/developers' specific liabilities, and associated costs. Also, Hadjri and Crozier (2009) identified the barriers of post-occupancy evaluation as; associated cost, defending professional integrity, time, skills, and the benefits depending on the post-occupancy approaches adopted. However, these previous studies have not empirically assessed the barriers and benefits of post-occupancy evaluation. This study

aimed at filling this established gap. This study will empirically examine the benefits and barriers of post-occupancy evaluation among the public and private sector stakeholders involved in public-private partnership housing delivery. The results of the empirical examination of barriers and benefits of post-occupancy evaluation in the public-private partnership housing delivery process will determine the proposal for its integration into the public-private partnership housing delivery process. It is imperative to test hypothesis to establish the benefit of post-occupancy evaluation in public-private partnership delivered housing.

H_0: The barriers of POE are greater than the benefit in PPP delivered housing

H_1: The benefits of POE are greater than the barriers in PPP delivered housing

LITERATURE REVIEW

Public Private Partnership Housing

Public-private partnership housing is housing units delivered through a consortium effort between the private and public sectors. Grimsey and Lewis (2005) asserted that public-private partnership housing is housing delivered as a hybrid of publicly procured housing and a fully privatized housing scheme. The scholars posited further that the roles of the public sector are different from that of the private sector. Previous studies identified some of the roles of the public sector as: a regulator of the housing market (Leung & Hiu, 2005); facilitator of an enabling environment (Sengupta, 2006); housing market moderator and facilitator of project completion (Lynch et al., 1999; Iroham et al., 2025a). Also, Adeogun and Taiwo (2011) identified the role of the private sector as; the financier, designer, construction and operator of housing units. Oladokun and Aluko (2011) and Akpoghome and Nwanu (2019) identified the variants of public-private partnership mostly adopted in housing delivery models as; build-operate-transfer, build-own-operate, build-own-operate-transfer, build-lease-transfer, design-build-finance-operate. Reuiters and Matji (2016) categorized the public-private partnership models into; state models, private models, and hybrid models. The state models are state-funded, state-owned and the private sector will serve as a consultant. The private models are private sector funded and owned and the public sector will serve as regulator and consumer protector. The hybrid model is a combination of the features of public and private models. Adeogun and Taiwo (2011) identified the following as the property development process of public-private partnership delivered housing; conception, site identification, preliminary development appraisal, development program, appointment of professionals, contract award, actual construction, completion and disposal of project and profit sharing. It can be inferred from the processes that there is no feedback mechanism in the whole development process. This necessitates the need for an assessment of the barriers and benefits of conducting post-occupancy evaluation of public-private partnership-delivered housing units.

Property Development Process

Property development is described as a continual combination of factors of production that is; land, labour, capital and enterprise (Costellor & Preller, 2010; Peter et al., 2024). The scholars asserted further that property development is a process with many integrated components. Oyedeji (2020) corroborates this assertion by describing property development as the process of increasing the value of an existing property, underdeveloped or developed by the application of material, human and capital resources. Property development involves input of different stakeholders and combination of different activities and materials. It can be inferred that there is no unifying classification of the property development process.

Some scholars classified the property development process by identifying the stages involved. Venter (2006) identifies the following as the processes of property development: idea/inception, concept refinement, preliminary feasibility, gaining control of the site, feasibility analysis, contract negotiation, design and documentation, financing, construction, marketing, and project finalization. Agunbiade (2012) classified the property development process as follows; conception and design, land preparation, building construction, and marketing. The motive for developing properties might not necessarily be financial, but prestige, social and political reasons. However, maximization of satisfaction is the ultimate goal of all property developers, even in an owner-occupied property (Oyedeji, 2020). The scholar posited further that satisfaction maximization can be in the form of low cost of construction or low maintenance costs. The classes of properties developed by a property developer range from; residential, commercial, industrial, recreational, and agricultural properties. Each of these classes of properties has its peculiarities in terms of property development.

Nigeria Housing Delivery Models

Drakakis-Smith (2012) classified housing delivery models in developing nations into; conventional and non-conventional housing delivery models. The conventional model can further be categorized as a public or private housing delivery. Also, the non-conventional can be categorized as slums and squatter settlements. The scholar posited that the adoption of both conventional and non-conventional housing delivery models creates a hybrid housing delivery model. Previous studies Makinde (2014), Vanhuysse (2015) asserted that most developing nations adopts non-conventional housing delivery models due to inefficiency in the land administration framework. Al Shareem et al. (2014) recommended the regularization of informal and slum settlements in developing nations as a measure against the menace of the negativity of the non-conventional housing delivery models.

Nigeria share the same attributes with other developing nations. The non-conventional housing model is more pronounce than the conventional housing model. However, in recent time, Nigerian government is intentional with the adoption of the conventional housing delivery model, especially a hybrid form of private and public conventional housing delivery model (Oladokun & Aluko, 2011; Iroham et al., 2025b).

Post Occupancy Evaluation

Post-occupancy evaluation is a systematic process of assessing the performance and effectiveness of buildings after its usage (Preiser et al., 2015). The scholars established that user satisfaction is an important aspect of post-occupancy evaluation. There are three major approaches to post-occupancy evaluation as posited by Hassanain, Al-Suwaiti and Ibrahim (2023) these are; the indicative approach, investigative approach, and diagnostic approach. The indicative approach involves the assessment of the strengths and weaknesses of a building through the use of interviews and observation of the components of the building. The investigative approach assesses compliance of a building to certain performance criteria like; building standards. Finally, the diagnostic approach assesses the nature of defects and causes in a building. The ultimate aim of the post-occupancy evaluation is user's satisfaction. This assertion has been corroborated by scholars (Ilesanmi, 2010; Hay et al., 2019; Olanrewaju & Chong, 2021; Hassanain et al., 2023) who posited that the major criteria taken into consideration in post-occupancy evaluation of a built facility are the satisfaction of the users. The benefits of conducting post-occupancy evaluation cannot be overemphasized.

Barriers of Post Occupancy Evaluation

Different barriers to post-occupancy evaluation have been identified by previous studies. Zimmerman and Martin (2001) identify standard practice, split incentives, indicators and benchmarks, and owner/developer-specific liability. The scholars expatiated further on these identified barriers as follows; the standard practice is that designers are not paid to go back and review the outcome of their designs. There are usually split incentives among building stakeholders. The developer is majorly interested in producing buildings at the lowest cost, while the occupant is interested in comfort and functionality and this is a major barrier to post-occupancy evaluation. Another major barrier is that there cannot be a consensus in the industry on performance indicators of a good building (Nyirenda, 2025). Finally, many building owners will be reluctant to undertake post-occupancy evaluation activities as this might affect revenue. Dainty et al. (2006) attributed the barriers to post-occupancy evaluation to the structure of the construction industry by asserting that; the construction industry is mainly made up of a series of one-off projects carried out by a temporary project team. Other specific barriers to post-occupancy evaluation is a depicted in Table 1 below.

Table 1
Barriers to post-occupancy evaluation

Authors	Barriers
Aqlima (2012)	Professional Territory
	Cost
	Time
	Skills
	Education and Attitude
	Ownership of POE
	Participation and Commitment
	Standard Practice
	Indicator Benchmarks
	Information
Sci-Network (2012	Professional Territory
	Cost
	Time
	Education and Attitude
	Ownership of POE
	Participation and Commitment
	Standard Practice
	Indicator Benchmarks
Izran (2012)	Professional Territory
	Cost
	Time
	Skills
	Education and Attitude
	Ownership of POE
	Participation and Commitment
	Standard Practice
	Indicator Benchmarks
	Information
	Return on Investment
Izran (2011)	Ownership of POE
	Standard Practice
Riley et al. (2009)	Cost
	Time
	Education and Attitude
	Ownership of POE
Brooks and Viccars (2006)	Indicator Benchmarks
Kooyman and Haylock (2006)	Indicator Benchmarks
Bordass and Leaman (2005)	Cost
	Education and Attitude
Mc Dougall et al. (2002)	Cost

Source: Owing processing

Benefits of Post-Occupancy Evaluation

Table 2
Benefits of post-occupancy evaluation

Authors	Benefits
Stevenson (2008)	√ Reduces owner's future cost
	√ Reduce whole-life environmental impact
	√ Reduces future liability of clients
	√ Maximize value of property portfolios
	√ Minimize maintenance cost
	√ Increases occupant satisfaction
	√ Increases design know-how
Meir et al. (2007)	√ Allow the systematic study of the building once occupied, so that lessons may be learned that will improve future design
Hewitt et al. (2005)	√ Support for the development of design and planning guides
	√ Provision of information to the building industry
	√ Testing of new concepts
	√ Justification of major expenditures
	√ Educate decision-makers (owners and designers) to avoid past pitfalls
	√ Improvement of building performance over time
	√ Promotes accountability of design among professionals and owners.
	√ Facilitate improved communication among designers, clients, facility managers and end users
Bordass and Leaman (2005)	√ POE as a viable tool provides feedback to design teams and facility managers
Malin et al. (2003)	√ Help to determine whether the building meets up with the initial design
	√ Enhance client-architect relationship
	√ Confirm building life cycle performance forecast
	√ Promote knowledge for the development of building design guidelines that negate age-long beliefs
	√ Useful in assessing new technologies, including innovation in resource conservation, natural ventilation, use of daylight and photovoltaics

Source: Owing processing

CONCEPTUAL FRAMEWORK

The conceptual framework is hinged on the work of Adeogun and Taiwo (2011) who identified the processes involved in property development of public-private partnership delivered housing as; conception, site identification, preliminary development appraisal, appointment of professionals, contract award, actual construction, completion and disposal of project and profit sharing. This study posits the need for appraising the benefits and barriers of post-occupancy evaluation with the aim of adopting it as a vital component of the processes.

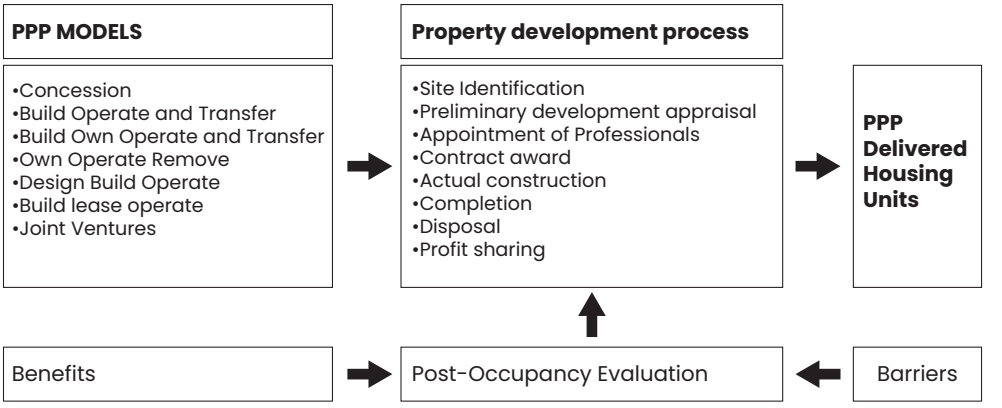

Figure 1. Eclectic diagram depicting assessment of benefits and barriers of post-occupancy evaluation

Figure 1 depicts an assessment of the benefits and barriers of post-occupancy evaluation to add post-occupancy evaluation to the property development process of public-private delivered housing units. The different public-private partnership models adopted for delivering housing units are depicted in the figure. The housing development processes are the same irrespective of the public-private partnership models adopted. The framework posits that post-occupancy evaluation should be added to the property development process if its benefits outweigh the barriers.

METHODOLOGY

This study adopted a quantitative research design. Barriers and benefits of post-occupancy evaluation in public-private partnership-delivered housing units were assessed by administering questionnaires to public-private partnership housing scheme officers in Lagos State Property Development Corporation (LSDPC), Lagos State Ministry of Housing and Lagos State New Towns Development Authority. The population size of the public-private housing scheme officers is 48. The 48 Public Private Partnership housing scheme officers were surveyed through the administration of questionnaires. Census of the 48 PPP housing scheme officers was conducted. Out of the 48 administered questionnaires, 42 were retrieved, correctly filled, and good for analysis. The Public Private Partnership housing scheme officers are in charge of the housing schemes from conception stage to post-disposal stage, so they are in the best position to assess the barriers and benefits of post-occupancy evaluation in the public-private partnerships delivered housing units. The outcome of the assessment will determine if the post-occupancy evaluation will be integrated to the Public Private Partnership property development process. The questionnaires administered have four sections which are: Section A, Section B, Section C, and Section D. Section A is on demographic details of respondents, Section B is on Barriers of post-occupancy evaluation, Section C is on Benefits of post-occupancy evaluation and Section D asked questions on integration of post-occupancy evaluation

to the PPP property development process. Gathered data were analyzed by descriptive statistics like; frequency distribution table, relative importance index, mean, standard deviation and rank as adopted by Oyedeji and Sodiya (2016) and Oyedeji (2021). The hypothesis was tested using Chi Square (Goodness of fit).

For the Weighted Mean Score (WMS), the study adopts 5-point Likert scale, with the scale measurement ranging from the least (1) to the highest (5) as thus: strongly disagree (1), disagree (2), indifferent (3), agree (4) and strongly agree (5).

$$W = \frac{\sum_{i=1}^{n} w_i x_i}{\sum_{i=1}^{n} w_i} \quad (1)$$

Where W = Weighted average

n = number of terms to average

W_1 = weights applied to values

χ_1 = data values to be average

The null hypothesis should be rejected if the calculated chi-square value exceeds the critical value at degrees of freedom and 0.05 significance level.

$$\chi^2 = \sum \frac{(O-E)^2}{E} \quad (2)$$

Where O = Observed data

E = Expected data

RESULTS AND DISCUSSIONS

Table 3
Demographic characteristics of respondents

Characteristics	Frequency	Percentage
Gender		
Male	18	42.857
Female	24	57.143
Total	42	100
Academic Qualifications		
HND	07	16.667
Bachelor's Degree	25	59.524
Masters	10	23.809
Total	42	100

Characteristics	Frequency	Percentage
Years of Professional Experience		
1-3 years	06	14.286
Over 3years	36	85.714
Total	42	100
Professional Affiliation		
Architecture	12	28.571
Building	09	21.429
Estate Surveying and Valuation	08	19.048
Quantity Surveying	13	30.952
Total	42	100

Source: Own processing

Table 3 depicts the demographic characteristics of respondents in the study area. It was gathered that there are 42.857% male housing scheme officers and 57.143% female housing scheme officers. The implication of this is that there are 24 female PPP housing scheme officers and 18 male PPP housing scheme officers in the study area. It can be inferred that females are not being discriminated against in the recruitment process of the PPP housing scheme officers in the study area. Also, 7 of the housing scheme officers have Higher National Diploma (HND) academic qualification, 25 of the PPP housing scheme officers have Bachelor's degrees and 10 of the PPP housing scheme officers have Master's degree. This finding revealed that the PPP housing scheme officers are well educated academically. The findings also revealed that 36 of the PPP housing scheme officers have over 3 years' experience and 6 of the PPP housing scheme officers have 1-3 years' professional experience. It can be deduced that the respondents have the requisite experience needed to assess the barriers and benefits of post-occupancy-evaluation of public-private partnership-delivered housing units in the study area. Lastly, the respondents are associated with different professional bodies in the built environment. 12 of the respondents are registered Architect Registration Council of Nigeria, 9 of the respondents are registered Council of Registered Builders, 8 of the respondents are registered by Estate Surveyors and Valuers Registration Board of Nigeria and 13 of the respondents are registered by Quantity Surveyors Registration Board of Nigeria. The professional achievements of these respondents will provide the needed background for the assessment of the barriers and benefits of post-occupancy evaluation in PPP delivered housing units. Summarily, the demographic characteristics of the PPP housing scheme officers give credence to their adoption as the study population for this study.

Table 4
Assessment of barriers to post-occupancy evaluation of public-private-partnership-delivered housing units

S/ No	Barriers	SA	A	I	D	SD	WMS	SD	RANK
1.	Protection of professional territory	18	10	06	08	00	3.905	0.0907	4
2.	Cost of POE	25	10	05	02	00	4.481	0.2644	1
3.	Time to conduct POE	22	11	08	01	00	4.286	0.2056	2
4.	Skills needed to conduct POE	05	05	18	09	05	2.905	0.2107	10
5.	Education and Attitude	08	12	11	05	06	3.262	0.1031	8
6.	Ownership of POE	17	10	06	07	02	3.786	0.0549	5
7.	Participation and Commitment	10	08	09	09	06	3.167	0.1317	9
8.	Standard Practice	16	17	09	00	00	4.167	0.1697	3
9.	POE Indicators Benchmark	12	09	07	09	05	3.333	0.0817	7
10.	Information	06	08	11	08	09	2.857	0.2252	11
11.	Return on investment	13	09	09	08	03	3.500	0.0314	6

Source: Own processing

The rating scale is presented as follows: SA- Strongly Agree (5), A- Agree (4), I- Indifferent, (3), D- Disagree (2), and SD- Strongly Disagree (1).

Table 4 assessed the barriers of post-occupancy-evaluation in public-private partnership delivered housing units. High cost of conducting post-occupancy evaluation ranked first with a mean weighted score (WMS) of 4.481. Time required to conduct post-occupancy evaluation ranked second with a WMS of 4.286. Standard practice of not including post-occupancy evaluation in the property development process ranked third with a WMS of 4.167. Protection of professional territories of the professionals involved in the property development is the fourth ranked barrier and ownership of post-occupancy evaluation ranked fifth with WMS of 3.905 and 3.786 respectively. Return of investment being negatively affected ranked sixth with WMS of 3.500 and post-occupancy evaluation indicators benchmarks ranked seventh with a WMS of 3.333. Education and attitude of the stakeholders ranked eight with a WMS of 3.262 and participation and commitment of the stakeholders ranked ninth with a WMS of 3.167. Skills needed to conduct post-occupancy evaluation ranked tenth with a WMS of 2.905 and availability of information ranked eleventh with a WMS of 2.857. These findings have empirically assessed the barriers of post-occupancy evaluation in residential properties as posited by Izran (2011, 2012) and Aqlima (2012). The dispersion of the standard deviation (SD) is high by spreading out over a large range of values around the mean.

Table 5
Assessment of benefits to post-occupancy evaluation of public-private-partnership-delivered housing units

S/ No	Benefits	SA	A	I	D	SD	WMS	SD	RANK
1.	Reduce Whole-life environmental Impact	10	07	07	07	11	2.952	0.1143	11
2.	Maximize value of property portfolios	04	08	13	08	09	2.762	0.1618	13
3.	Minimize maintenance cost	28	08	04	02	00	4.476	0.2668	1
4.	Increase occupant satisfaction	19	07	08	04	04	3.786	0.0943	4
5.	Allow systematic study to improve future design	22	07	08	03	02	4.048	0.1598	3
6.	Support for development of design and planning guide	16	04	11	07	04	3.500	0.0228	7
7.	Provision of information to building industry	05	08	09	12	08	2.762	0.1618	13
8.	Justification of major expenditures	16	06	12	05	03	3.643	0.0585	5
9.	Educate decision makers to avoid pitfalls	24	09	07	01	01	4.286	0.2193	2
10.	Improvement of building performance overtime	05	09	09	08	11	2.738	0.1678	14
11.	Promotes accountability of design among professionals	17	08	06	07	04	3.643	0.0585	5
12.	Facilitates improved communications among stakeholders	14	08	11	04	05	3.524	0.0288	6
13.	Help to determine whether building meets up with initial design	13	08	10	05	06	3.405	0.0010	8
14.	Confirm building life-cycle performance forecast	08	09	09	11	05	3.095	0.0785	9
15.	Promotes knowledge for development of building design	08	08	09	10	07	3.000	0.1023	10
16.	Useful in assessing new technologies	07	08	10	09	08	2.929	0.1200	12

Source: Own processing

Table 5 depicts the benefits of post-occupation evaluation of public-private partnership-delivered housing units. Minimizing maintenance cost is the first-ranked benefit of conducting a post-occupancy evaluation of PPP housing with a weighted average of 4.476. The second-ranked benefit of post-occupancy evaluation is that post-occupancy evaluation educate decision-makers to avoid pitfalls with a WMS 4.286. Allowing systematic study to improve future design ranked third with a WMS of 4.048. Increase in occupant satisfaction ranked fourth with a WMS 3.768 and justification of major expenditure and promotion of accountability of design among professionals ranked fifth with a WMS of 3.643. Facilitate improved communications among stakeholders ranked sixth with a WMS 3.524. Support for the development of design and planning guide ranked seventh with a WMS of 3.500 and help to determine whether building meets up with initial design ranked eight with a WMS of 3.405. Confirm building life-

cycle performance forecast ranked ninth with a WMS of 3.095 and promotes knowledge for building design development ranked tenth with a WMS 3.000. Reduce Whole-life environmental Impact ranked eleventh with a WMS of 2.952. Useful in assessing new technologies ranked twelfth with a WMS of 2.929. Maximize value of property portfolios and Provision of information to building industry ranked thirteenth with a WMS of 2.762. Improvement of building performance overtime ranked fourteenth with WMS of 2.738. This study has empirically examined the benefits of post-occupancy evaluation of residential properties posited by Hewitt et al. (2005), Meir et al. (2007), Stevenson (2008). The dispersion of the standard deviation (SD) is high by spreading out over a large range of values around the mean.

Hypothesis Testing

At the 5% level of significance, the critical value of with degrees of freedom is 9.49, where represents the degrees of freedom. The calculated value is 72.439.

Since , we reject the null hypothesis and accept the alternative hypothesis

hypothesis stating that the benefits of POE in PPP housing delivery is greater than the barriers is accepted. The implication of this is that there is a limited impact of the barriers of post-occupancy evaluation compared to the benefits in public-private partnership delivered housing units.

Table 6
Integration of post-occupancy-evaluation into PPP property development process

S/ No	Integration factor	SA	A	I	D	SD	WMS	RANK
1.	Barriers of POE will make it impossible to integrate into PPP property development process	07	08	08	12	07	2.905	5
2.	Benefits of POE will encourage its integration into PPP property development process	25	10	05	02	00	4.381	2
3.	It is impossible to integrate POE into PPP property development process	04	06	05	17	10	2.452	6
4.	It is possible to integrate POE into the PPP property development process	20	05	10	07	00	3.905	3
5.	Effect of barriers of POE is greater than its benefits	08	12	11	05	06	3.262	4
6.	Effect of benefits of POE is greater than its barriers	25	10	05	02	00	4.405	1

Source: Own processing

Table 6 depicts the feasibility of integration of post-occupancy evaluation into the public-private partnership property development process. The finding revealed that the effect of the benefits of post-occupancy-evaluation is greater than its barriers ranked first with a WMS of 4.405 and the Benefits of POE will encourage its integration into the PPP

property development process ranked second with a WMS of 4.381. The possibility of integrating POE into the PPP property development process ranked third with a WMS of 3.905. The effect of barriers of POE is greater than its benefits ranked fourth with a WMS of 3.262 and Barriers of POE will make it impossible to integrate into the PPP property development process ranked fifth with a WMS of 2.905. The impossibility of integrating POE into the PPP property development process ranked sixth with a WMS of 2.452. It can be inferred from this finding that the benefits of post-occupancy evaluation are enormous and will aid its integration into the property development process. Also, the finding revealed that it is possible to integrate post-occupancy evaluation into the PPP property development process. This finding can be corroborated by the impossibility of integration of post-occupancy evaluation ranking least among the integration variables.

Practical and Policy Implication

These findings shall enhance the adoption of PPP as a housing delivery model due to enhanced satisfaction of the occupants of the delivered housing units. The practical and policy implication of integrating post-occupancy evaluation into the PPP property development process will benefit the stakeholders; the private property developers, the public corporation, the occupants, and the neighborhood. The private property developer's income will increase due to a reduction in maintenance costs. Furthermore, there will be a reduction in property development-associated risks due to the knowledge of possible pitfalls in the property development enterprise. Also, the government will benefit from the increase in income due to the profit-sharing agreement associated with public-private partnership-delivered housing. An increase in income will consequently translate into an increase in property tax. The government and the private property developer will also benefit from increased capital and rental value due to qualitative property maintenance and reduced maintenance costs. The occupant will be more satisfied if post-occupancy evaluation is made an integral part of the property development process as a result of quick discovery and rectification of building defects. The neighborhood will benefit by extension from the quick discovery and rectification of building defects, creating a decent and organized neighborhood.

CONCLUSION

Post-occupancy evaluation integration into the property development process of public-private partnership-delivered housing units is critical. The benefits of conducting POE are enormous to the stakeholders; public, private, neighborhood, and residents. The study has established that the benefit of POE outweighs the barriers. However, there is a need to develop an acceptable framework for integrating POE into the PPP property development process. The development of an acceptable framework for the integration of POE into PPP property development process is the area of further research that can be explored by other researchers.

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