



A Critique of Development Valuation in Real Estate Project in Abeokuta, Ogun State Nigeria

Bello IK¹, Adeniji WA², Olaniran MO³

¹Estate Management department, Moshood Abiola Polytechnic, Abeokuta

²Building technology Department, Moshood Abiola Polytechnic, Abeokuta

³Estate Management department, Federal Polytechnic, Ilaro, Ogun State

Abstract Property development is regarded as a complex decision making activity and in most decision making situation the decision maker's judgment is bounded in its rationality due to the decision maker's own limited decision making ability and capability, further it has been suggested that decision makers rely on development valuation /appraisals from certified development valuers in making decisions. This paper was structured to study the role of development valuation in property development project in Abeokuta with a view to provide better understanding of the concept for the prospective investors. Relevant literature was reviewed along earlier studies involving the concept of property development project and techniques in the valuation of property development projects. Also methodological frameworks were employed empirically to investigate issues raised in an attempt to satisfying the objectives of the study. In view of that, all the 13 registered estate surveyors and valuers firms in the study area were served with the structured questionnaire. The results, based on chi-square goodness of fit test, indicated statistically indifference with the models applied for project appraisal. It was therefore, discovered that although development valuation plays a significant role in making decision but suffers from the drawback that home buyers /sellers of property development project do not always employ the appraiser's estimate /values as their true market prices. The study therefore suggested that necessary exposure to valuation models / standards and their applications are necessary in order to be at the same level with advanced countries while relevant trainings on the use of models should be made mandatory by the Nigerian Institution of Estate Surveyors and Valuers so as to enhance surveyors knowledge in the areas of development valuation processes.

Keywords Valuation standard, Property Management, Appraisal, Models, Environment.

Introduction

Property development is complex decision making activity, involving entrepreneurial flair, risk assessment, patience, skills and, if successful a great sense of satisfaction [1]. According to Ojo (2006), it is simply a complex economic activity that has to do with development of a bare but ripe site or redevelopment (refurbishment conversion or alteration) of a development site [2]. And consequent upon the complexity and dynamism in the socio-economic environment of property development, qualified estate surveyor and valuers commission calculation which can inform the developer on the cost from the proposed development. This type of calculation is termed development valuation or appraisal [3].

The valuation of development is however, usually the result of laborious and complicated deliberations and/or computation delivered orally, or presented in an authoritative and comprehensibly written form to the client who requires the appraisal to make decision or to execute a project [4-5]. Development appraisal or valuation is



therefore, regarded as prerequisite for successful and satisfactory execution of property projects, resources exploitation, utilization and investment decisions [6]. But despite the fact that development appraisal is said to be a precondition for a successful execution of a project and also for arriving at decision, it has recently not been considered as one of the salient tools for predicting, with certainty, the outcome of the property development projects [7].

In this regard, this study was conceived to determine the role played by development valuation and its implications in the property development projects. This paper seek to examine the worthiness or otherwise of carrying out development valuation exercise and calculation exercise and calculation on every development project, especially in Abeokuta

The use of the development valuation in practice as good proxy for making decision in property development projects has been regarded with less emphasis. Therefore, in view of the forgoing the question to be addressed includes:

- Is development valuation a good proxy for making decision in property development project?
- What are the nature and characteristics of property development projects in the study area?
- What are the techniques in uses for the appraisal of property development projects in the study area?
- What are the techniques reasons adduced for the method in use in the appraisal of property development projects?
- What is the impact of development valuation on the property development projects?

The Concept of Property Development

Ogunba (2013), described property as a complicated legal concept. Many people think of it in terms of objects that can be owned or proposed [8]. People also refer to their belongings, including land, as their property [9]. Property also connotes land or immovable as it sometimes called and other objects known as chattels or movable [10]. Legally, these are also known as real and personally property relative to the ownership [11]. Property is the exclusive right to possession, enjoyment and disposition of anything which can be the benefits of an economic good, be it materials or non-materials as determined by law [12].

Property development Project

Development is the process of carrying out works involving a change in the physical use or the intensity of an existing use of land or building [13-14]. The term development as defined in section 2(1) of the Nigeria Urban and Regional Planning decree of 1992, states that development in relation to any land includes any building or rebuilding operation and any use of land or any building thereon for the purpose which is different from the purpose for which the land or building was previously being used. The world development generally means the process of carrying out construction involving a change in the intensity of the use of land or with a re-establishment ranging from humble addition of a bedroom or a garage to a private house or the ambitious of re-development of a city center. Oluwaluyi, (2008) also agreed that development could also be viewed from property as investment [12]. It is defined as the manufacture of improvement on land that give either an economic (financial) or social satisfaction [15]. Property development is therefore, a combination of activities that must be executed in a certain order before the entire tasks is completed. It involves series of activities and tasks that have specific objectives which are meant to be completed within certain specifications, have defined tasks and end times, having funding limits, consumes resources, multifunctional and also follows a production process [16].

Purpose of property Development Project

The purpose of property development is to provide accommodation for the occupation for the person carrying out the development, or for someone else. Ojo and Ighalo (2006), identifies that the objectives of property development are to build to suit the occupier's need and image, for Property Company to make profit or investment purpose and for social benefits accruing to the community it serves [17]. The past several decades have been marked by rapid growth in projects as a means by which organization achieve their objectives [18]. Property development project provide an organization with powerful tool that improves its ability to plan, implement and control it activities as well as the ways in which it utilizes its people and resources [3]. Thus,



they do by bringing out the forefront the energetic, active and creative abilities that are inherent in man (Ebie, 2008).

Basis and Method of Development Valuation

Ogunba, (2013), confirmed that the basis of development valuation is open market value for the alternative (highest and best) use which is equated to all costs (development cost plus land costs) and profit [8]. The residual method of valuation is the conventional techniques for the valuation of all latent development /redevelopment potentials. However, Ojo (2004, 2006) sees the traditional residual technique adopted mostly in practice for development appraisals is deterministic in nature and it is fast becoming inadequate to take care of today's dynamic socio-economic investment environment [17,19]. Several writers have been arguing that cash flow approach would provide more accurate information than the traditional residual method of valuation [7, 20-21]. This is because the cash flow approach can accommodate details and complexity.

A residual appraisal is based on simple equation:

Gross development Value (GDV) = Total Development Cost (TDC) + Land Cost (LC) + Developer's profit (DP)

In the above equation, gross development value refers to the value of the completed development project. Total development cost is a complicated term including demolition and clearing costs, building cost, professional fees for architects, quantity surveyors and structural engineers, cost of providing car parking /landscaping /letting/marketing costs. The developers 'profit refers to the remuneration to the developer for carrying out the development. Land cost is a composite term referring to the actual site cost, agency fees paid to acquire the site, and the interest paid on loan to purchase the site [8].

Net Present Value Method

This is just like the investment method of valuation in that all future items are discounted to a net present value by using compound interest calculation [8]. Net present value is a discounted cash flow measure which discount to the presents all the future earnings and expenditure to arrive at a figure of net capital gain or loss using the cost (or opportunity cost) of capital basis. However, whereas in a development valuation, it is conventional only to consider the net income of each year, the use of a tabular format for the net present value method facilitates the inclusion as separate items in the appraisal of all income and expenditure for each year. The valuers can decides whether he or she will then in fact simply discount the net income or the net deficit for each year to the present, or whether if there is sound reason for doing so, item of income and expenditure will be discounted separately using different rates of interest for the purpose as appropriate [20].

The Study

The empirical investigation centered on data collected from the use of structured questionnaire administered on the registered estate Surveyors and valuers in the study area. The estate surveyors are the real property consultant professionally recognized in Nigeria to conduct valuations. A total number of 13 questionnaires were administered on all 13 surveying and valuation firms that have their offices in Abeokuta which is the study area. The information so generated are analyzed and presented below:

Data Presentation and Analysis

The questionnaires sought to ascertain the area of specialization of respondents' firms of estate surveying and valuation. Results obtained are as contained in the table below:

Table 1: Estate Surveying and Valuation Firms' area of Specialization

Area of specialization	Frequency	Percentage (%)
Valuation	0	0
Property financing and development	0	0
Estate agency	2	15.38
Property Management	4	30.77
General Practice	7	53.85
Total	13	100.00

Source: Author's field survey, 2015



From the table above, it is clear that majority of the surveyors' firms (53.85%) engaged in general practice, while a few of them engaged in either property management or estate agency as a means of survival, therefore, given little or no room for specialization. If we accept the argument that specialization gives room to efficiency, then this result may suggest that most firms of estate surveying and valuation might not be operating at the highest level of efficiency.

Types of Property Development Project in the Area

In order for the researcher to have a well knowledge of the type of property development projects in the study area and to make conclusion which may be general and with specific implication or application in the real estate business, the questionnaire was therefore, designed to secure information on the prevailing types of building construction in the area from respondent firms of estate surveying and valuation in private practice. The result obtained is as contained in table 2 below.

Table 2: Analysis of the Property Development in the Study area

Projects	Frequency	Percentage (%)
Residential projects	6	46.15
Commercial projects	4	30.76
Industrial projects	2	15.53
Agricultural projects	0	0.00
Recreational projects	1	7.69
Total	13	100.00

Source: Author's field survey, 2015

Table 2 above showed that residential properties are the most (46.15%) property development project in the study area followed by commercial property development project (30.76%). The industrial projects has (15.53%) and recreational project is having (7.69%) in the study area. This showed that perhaps because residential and commercial property development involve fairly huge sum of money, if compared with other projects like the industrial and recreational property development projects and hence can be undertaken by individuals with a relative short time to complete.

Development Appraisal Techniques in Practice

Some development appraisals techniques were represented before the respondents to select those techniques they have been using in their practices. Data gotten from the respondents are as contained in the table 3 below.

Table 3: Development valuation Techniques used by Estate Surveying Firms

1. Application of Risk-Analyses and Adjustment Techniques:

(a). Risk Analyses Techniques	Never in use	Seldom in use	Occasionally used	Always Used
Expected Net Present Value	0 (0.00%)	1(7.69%)	3 (23.08%)	9 (69.23%)
Sensitivity Analysis	1 (7.69%)	2 (15.38%)	3 (23.08%)	8 (61.52%)
Standard Deviation	1(7.69%)	2(15.38%)	5 (38.46%)	5 (38.46%)
Monte Carlo Simulation	7 (53.85%)	3 (23.08%)	1(7.69%)	0 (0.00%)
Stochastic Decision Trees	9 (69.23%)	3 (23.08%)	0 (0.00%)	0 (0.00%)
(b).Risk Adjustment Techniques				
Conventional RADF model	0 (0.00%)	0 (0.00%)	3 (23.08%)	10 (76.92%)
Contemporary RADF model	1(7.69%)	2(15.38%)	4 (30.77%)	6 (46.15%)
Certainty Equivalent Cash Flow	0 (0.00%)	1(7.69%)	5 (38.46%)	7 (53.85%)
Sliced Income Approach	5 (38.46%)	4 (30.77%)	3 (23.08%)	1(7.69%)
Portfolio Theory	7(53.85%)	3 (23.08%)	2 (15.38%)	1(7.69%)

Source: Author's field survey, 2015



Table 4: Application of R-Growth –Adjusted (DCF-based)

Model	Never in use	Seldom in use	Occasionally used	Always Used
Marshall's Equated Yield analysis	9 (69.23%)	3 (23.08%)	1 (7.69%)	0 (0.00%)
Sykes' Rational Model	10 (76.92%)	2 (15.38%)	1(7.69%)	0 (0.00%)
Crosby's Real Value Approach	8 (61.52%)	3 (23.08%)	1 (7.69%)	1(7.69%)

Source: Author's field survey, 2015

Table 5: Reason for level of Application of the Model

Reason	Not Known	Not Understood	Difficult to apply	Easy to apply
Risk-analysis & Adjustment	1 (7.69%)	1 (7.69%)	3 (23.08%)	8 (61.52%)
Rental Growth-Adjustment	0 (0.00%)	2 (15.38%)	5 (38.46%)	6 (46.15%)

Source: Author's field survey, 2015

The surveyors were asked to indicate the levels of applicability of the model used in the project appraisal. The results showed that 69.23% always use the Net Present Value for project appraisal while 23.08% occasionally used the model. 76.92% and 46.15% indicated the use of Conventional and Contemporary models. However, nobody said that they never used the model. 17.69% and 30.77% said that they seldom use certainty Equivalent and sliced Income Approach models. Whereas 23.08% and 38.46% indicated their opinion that they occasionally used standard Deviation and Monte Carlo Simulation. 53.84% and 69.23% of the surveyors' firm interviewed said that they never use Monte Carlo Simulation and Stochastic Decision Trees.

When appraising the risk adjustment model for the project, about 38.46% and 53.85% of the surveyors' firms never use Sliced Income Approach and Portfolio Theory. None of the respondents even use Certainty Equivalent Cash Flow model.

The problems that most surveyors faced as indicated above are that they would neither be explicit about the risks nor adequately verify their application with other available techniques.

Significant of Development Valuation in Decision Making Process

In this regard, the staff of estate surveying and valuation firms in the study area were asked questions relating to the importance or otherwise of development valuation in making decision regarding property development projects and table 5 below presents their responses.

Table 6: Significant of Development Valuation to Property Development

Decision	Frequency	Percentage (%)
Very important	9	69.23
Important	3	23.07
Indifferent	1	7.69
Not important	0	0.00
Total	13	100

Source: Author's field survey, 2015

Table 6 above indicates that estate surveying and valuation firms place very high importance on the usage of development valuation before making decision in respect of property development projects in the study area as 69.03% indicated the option. This showed that for every development project it is very important for the investors to request the service of a qualified Valuer to appraise the project for economic, environmental and political reasons.



Table 7: Chi-square Test Result for Significant Level of Techniques used and the Reasons for its usage

			Variables	dF	Chi-square	p-value	α	Decision
Do valuation firms understand and apply risk analysis and adjustment models when undertaken development appraisal?			RADF (Contemporary)	3	108.320	.054	.05	Not Significant (NS)
			RADF (Conventional)	3	4.673	.063	.05	Significant (NS)
			Sensitivity Analysis Standard Deviation	3	90.00	.064	.05	NS
			Monte Carlo Simulation	1	54.760	.057	.05	NS
			Stochastic Decision Tree	2	99.500	.067	.05	NS
			Certainty	2	162.960	.062	.05	NS
			Equivalent Cash flow	2	130.340	.066	.05	NS
			Sliced Income Approach	1	92.040	.062	.05	NS

Source: Author's field survey, 2015

If we consider the chi-square test of significance in the table above, the inference drawn is that most of the firms applied the risk and adjustment model to the levels of their understanding when undertaken the development appraisal for $p < .05$. we accept the conjecture that the models are significantly in use except some model like Monte Carlo Simulation and Stochastic Decision Trees where $p > .05$ thus showing that difference is not significant.

Discussion of Results

From the analysis, the survey for the study showed that residential and commercial property development projects are the dominant projects in the study area. Also it was discovered that the most used method employed by valuers in the study area are Net Present Value and Payback Period Method and the major reasons adduced by the respondents are that they are the appropriate methods and very convenient to use. It should be noted that the training and levels of exposure to international valuation practice played a major role in the decision of the respondents while it was the opinion of the surveyors that development valuation plays a significant role in development decision and usually comes first in negotiation and construction stages in property development project.

Based on the above results, it was discovered that there is lack of specialization in the profession and this might give rise to inefficiency. The study also showed that valuers were in the habit of adopting different approaches in appraising property development projects when they were valuing for sales purpose. There is evidence to conclude that development appraisals in Abeokuta can be described as a good proxy for making decision relating to property development projects.

Recommendations

Based on the outcome of the study, the following recommendations are made:

- (1) Emphasis should be placed on members' specialization in the valuation practice. Specialization guarantees efficiency as against the current prevalent one-man estate surveying and valuation firms' show where in a valuer becomes jacks of all trades.
- (2) It is recommended that a more rigorous and mandatory training and retraining of estate surveyors and valuers should be embarked upon on a periodic basis. This will open their eyes more on the areas they are still lagging behind.



- (3) There is need for more exposure to international best practice in valuation standard. Nigerian Valuers should be encouraged to liaise with valuers in advanced countries in order to have access to better information and new trends in project appraisal.

Conclusion

Development valuation plays a very significant and essential role in the property development projects. This study has however, been able to expose the importance of appraisal models and their importance in development valuation/appraisal which is expected to serve as an instrument used in processing unique social and economic dreams of a particular property developer to a tangible and realizable aims and objectives. However, the challenges are that the report still not always considered as the eventual market price due to the inability of the estate surveyors and valuers, in private practice, to employ the same development valuation techniques thereby causing other property development stakeholders to doubt its reliability. A better understanding of models of development appraisal will therefore enhance the acceptability and credibility of appraisal reports submitted by valuers and makes them to be more relevant in property development decision making process.

References

1. Ghazali, M.M., & Torrance, V.S. (2012). Judgment analysis and decision Making in Property Development, London: University College.
2. Ojo, O. (2006). Reliability, Consistency and rationality of Professional prepared Valuations: Suggestions for Resolving the problems in Nigeria Practice. CPD training Workshop Organized by the NEISV in Lagos, Kaduna and Enugu.
3. Ajayi, C.A. (1998). Property Investment and analysis. Ibadan; De-Ayo Publications.
4. Effiong, J. B. (2015). The Reliability of the Investment Method of Valuation in Valuing Income Producing Properties for Mortgage in Nigeria. A Case Study of Calabar Metropolis. *Journal of Emerging Trends in Economics and Management Sciences (JETEMS)*, 6(4), 245-252.
5. Bayne, P., & Cadman, D. (2011). Risk, Uncertainty and Decision Making in Property Development. London E & Fn Spon.
6. Bello, M.O. (2003). Plant and machinery Valuation: Engineer or Valuers? The Great debate, London: Armitage Books – GURUPR.
7. Ajayi, C. A. (2009). International Valuation Standards as Applicable in the Use of the Investment Method of Valuation and in Mortgage Valuation. Valuations in the Residential Property Market in Lagos. *The Estate Surveyor and Valuer*, 21(2).
8. Ogunba, O.A. (2013). *Principles and Practice of Property Valuation in Nigeria*. Atlantis Books and publishing Ltd, Ibadan.
9. Curry, S. and Weiss, J. (2010). *Project Analysis in Developing Countries*. London: Macmillan Publishers Ltd.
10. Bello, N.A. (2006). The Economics of Land and Housing. Academic Publications, Lagos Island, Lagos.
11. Sirota, D. (2011). Essentials of Real Estate Investment 7th edition. Dearborn, Chicago.
12. Oluwaluyi, A. (2008). Affordable Housing: The Masses Hope. A paper presented at the 2008 International Housing Conference, Organized by the Nigerian Institution of Estate Surveyors and Valuers, Lagos Branch. 27th – 28th May.
13. Balchin, P.N., Keive, J.L., & Bull N.A. (2012). Urban Land Economics. London: The Macmillan Press Ltd.
14. Kadiri, W.A. (2012). The Heart and Soul of Humanity: Planning, People and Princes. 1st Premiere Lecture. Moshood Abiola Polytechnic, Abeokuta.
15. Idudu, O.J. (1991). Mobilization of Private and Public Investment in Property Development. *The Estate Surveyor*, 15(1), 3-15.
16. Nubi, T.O. (2003). Flying with One wing: Dilemma of the Federal Mortgage Bank. *The Estate Surveyor and Valuer*, 26(1), 35-42.
17. Ojo, O., & Ighalo J. I. (2006). Factors Affecting Lenders' Consideration of Housing loan Applications in Southwestern Nigeria. *Journal of NITP*, 19 (1), 87-100.



18. Nuhu, M.B. (2008). Good Governance in Land Tenure and Management of Nigerian Cities. Paper presented at the 38th Annual Surveyors and Valuers, Transcorp Hilton Hotel, Abuja 8th – 13th April.
19. Ojo, O. (2004). Development Appraisal and Risk Adjustment in Commercial Property Development in Lagos Metropolis. *Journal of Land use and development Studies*, 2(1), 234 -302.
20. Baum, A. (1998). Property Investment Appraisal, London; Rutledge.
21. Johnson, Tony Davies, Keith and Shapiro. (2000). Modern Methods of Valuation, 9th edition. London: Estate Gazette.

