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Assessment of Viability Appraisal Practice by Estate Surveyors and Valuers in Lagos Metropolis, Nigeria

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ABSTRACT

A capital investment appraisal is a means of ensuring value for money. It is not meant to provide an indication of profit or loss, but rather a comparison of costs in relation to those areas where there is an opportunity or an inclination for change. The decision to invest in a project is based on the expectation of future returns since a rational investor does not expect to incur loss on his capital outlay. This decision making is usually hinged on advice obtained during pre-investment appraisal. This study is aimed at evaluating the mode of practicing investment viability appraisal by Estate Surveyors and Valuers in Lagos metropolis. The data for the study was obtained by randomly administering structured questionnaires on eighty-seven (87) practicing Estate Surveyors and Valuers in the study area and the findings were analyzed through descriptive statistical tools such as the Likert scale to present the result. Findings revealed that the payback period is the most adopted appraisal technique in practice as evidenced with a mean score of 3.57. The objective (s) of the investor is also the most significant factor being considered while selecting appraisal technique with a mean score of 3.83 while the problems of actual return varying from the expected return and also difficulty in the repayment of loans always result when a wrong viability technique is employed. The success of any viability study goes beyond knowing the objective (s) of the investor; therefore, it was recommended that appraisers should ensure that they are equipped with adequate knowledge required for the execution of feasibility and on viability studies because knowing the right viability criteria for a particular objective will help in advising an investor on a course of action that will best achieve the developer's objective.

1. Introduction

A capital investment appraisal is a means of ensuring value for money in relation to developing an estate strategy and capital project. It is not meant to provide an indication of profit or loss, but rather a comparison of costs in relation to those areas of the estate where there is an opportunity or an inclination for change (Baum and Mudambi 1999). The inputs should therefore only consider situations where the option may increase or decrease cost or value. It is usual to generate a range of options covering the extreme solution (e.g. total relocation) to a 'do minimum' approach (Layard and Glaister 1994). The decision to invest in a project is based on the expectation of future returns because rational investors usually aim at minimizing risk as well as maximizing returns. This therefore calls for a thorough investment appraisal through the application of a technique that will guide the investors in order not to incur loss on his capital outlay. Investment appraisal involves the weighting of benefits against costs by the application of one or more decision rules because it is a way of ascertaining the worthwhileness of such investment (Okoh 2008).

The search for a reliable method of project appraisal dates back to decades. Before the advent of modern technology, people employ the traditional appraisal method to assist in decision making of their capital to be invested. Despite the usefulness of the traditional appraisal, these methods have been criticised on several grounds such as its inability to project or forecast effectively thereby making an investor to incur loss on his capital outlay. Capital investment decisions are of high importance to any business because they involve the commitment of key resources which has an impact on the long-term performance and the shareholders' wealth; therefore finding reliable methods for measuring the potential value of capital investment proposals is a matter of concern for not only managers but also shareholders of a firm (Akalu, 2001).

The study of performance of investment is very important at this time when emphasis is on investment performance analysis in many parts of the world (Oyewole, 2013). Nigerian economy has witnessed a significant change; the buoyancy experienced in early 70's and 80's cannot be compared to today's economy (Ajayi 1998). The viability indicators upon which decision making in property development is based are fast becoming more difficult to predict in a dynamic and unstable economic system like Nigeria. Investment viability studies are required as "conditions" for meeting either statutory approvals or securing development finance. It is equally important when a bank is considering an open-end loan because repayment of the loan may depend upon the project's sales or leasing program. Overall, the investor or financial institutions must determine whether or not a thorough feasibility study justified the project before the bank issued a

loan commitment. It must also ensure that an unsound appraisal or analysis that does not reflects current and reasonably anticipated market conditions must be rejected (Beaman, 2012).

The prospective investor would have made a decision to execute the project before carrying out a feasibility and viability study. The decision taken often has its impact on the overall performance and the final outcome of some projects. Bello (2013) stated that feasibility and viability appraisals are basically carried out primarily for the purposes of assessing the need for and the market prospects of the investment proposal; estimating the costs of the project as well as its expected revenue; preparing a suitable schedule of programme of activities for the implementation of the proposal; evaluating the proposed funding arrangement for the project given the promoters current financial position; and the determination of the level of profitability expected from the investment proposal.

There have been criticisms on the development appraisal techniques used by professionals on the basis of their simple assumptions about incidence of cost and finance charges (Darlow, 1990). It is assumed that costs and values will not change through time. In view of the sensitive nature of the variables considered in development appraisal there is need for some sort of sensitivity analysis. The traditional practice of using current estimate of rental value, investment yield; building cost and finance rate is susceptible to error taking into consideration the dynamic nature of the variables involved in the development appraisal. Higher than anticipated interest rate, upward variation in construction cost estimate, lower than expected yield and longer void periods now pose new challenges to development appraisal methodology.

However, this problem is not peculiar to Nigeria. As observed by Thai (1983), Born (1988) and Pagliari (1995), there is no development appraisal that is hundred percent accurate. The quality of advice provided to clients by development surveyors is fast becoming inadequate in a dynamic economy. There is the need for preparation of appraisal reports that can match what operates in a complex property development market. The current practice of implicit treatment of risk elements in property development appraisal makes the profession lag behind in the field of general finance. The outcome of commercial development appraisal can no longer be left to intuition and past experience of surveyors. The risk characteristics and tolerance of investors differs considerably, and where this fact is dismissed, appraisers result will produce perception of risks that deviate from that of their client (Ogunba, Ojo and Boyd, 2005).

Viability study involves highly critical analysis of viability criteria (physical indicator, financial, economic, legal, sociopolitical and cultural indicators) in order to properly advise prospective investors (Ogbuefi, 2002). Categories of decision required different viability criteria, and the criteria suitable for any decision can only be those which are in consonance with the objectives of the decision-maker. The objectives or set of objectives of a client should serve as yardsticks for the valuer. Odeyomi (2007) stated that there are two main methods for determining the profitability of or otherwise of real estate project and they are the traditional and modern methods. Appraisal techniques can either be deterministic or probabilistic. Deterministic approach relies solely on the best estimate of all variable inputs for the viability computation perceived from a single-point view, and the result is run once, while the probabilistic approach, on the other hand, incorporates risk, which the deterministic approach does not recognize. It hinges on the premise that the expected returns which is the best estimate might not actually be achieved, thus uncertainty comes in (Ojo, 2006). The deterministic approach such as residual valuation method, developmental method, break-even valuation, cost benefit technique, cash flow technique, payback period, Net Present Value (NPV), the Internal Rate of Return (IRR), Annuity method, profitability index, debt coverage ratio among others has been criticized on the ground that it does not incorporate risk in its computation, especially in an economy that is very susceptible to inflationary changes and uncertainty. Therefore, they cannot be relied upon in a situation where the economy is unstable, inflation is high, and there is high interest and exchange rate as is the case in Nigeria.

Ojo (2006) observed that the decision making techniques used in real property development appraisals, are greatly influenced by the dynamic and complex socio-economic environment in which property development operates. The reliability of development appraisal greatly depends on the ability of the appraiser to accurately estimate the variable inputs used in the appraisal. Appraisers do base their judgment only on the objective(s) of the decision-maker, which is always to maximize profit. The implication of the adoption (by the appraiser) of a more optimistic risk attitude than that considered appropriate by their clients is that development appraisals might not be adequately addressing the client's lower risk tolerance. Modern methods of appraisal that incorporate measurement of risk and uncertainty such as Monte Carlo Simulation, Risk Adjustment Discounted Rate technique, Certainty Equivalent technique and Sliced Income technique are not yet embraced in practice despite experts' view that these are the best methods that are more applicable under conditions of risk and uncertainty. The modern appraisal techniques have been developed to deal with the problems inherent in the traditional method of appraisal; these modern methods has been tested in the developed countries and found to be more effective and efficient to deal with the persistent problems encountered in the process of adopting the traditional methods of appraisal.

Ogunba *et al.* (2005) noted that most development appraisers that include an analysis of risk in their development appraisal simply employed the risk analysis approach that suited them (appraisers). It argued that the choice of viability criteria and consequently the appropriate appraisal technique should be based on the perception and tolerance of risk of the investor. The valuer's role is to discover those criteria before selecting the appropriate technique to be used because the main trust of investment appraisal is the examination of costs and benefits that result from an investment. The decisions to invest are of vital importance to all companies, and effective appraisal techniques are most valuable tools to support the decision-making process. However, even in the face of economic instability, the common probabilistic approaches such as sensitivity analysis, the risk-adjusted discount rate, risk adjusted cash flows (the certainty equivalent technique and the weighted average approach), and Monte Carlo simulation are rarely used. Most development appraisals focus more on returns and less on risk analysis, which is why the techniques being used are deterministic in nature and is fast becoming inadequate to take care of today's dynamic socio economic investment environment (Ratcliff and Stubbs, 1996).

The methodology of determinism makes these techniques unsuitable in such a volatile economy as that of Nigeria. The first attempts at jettisoning determinism in project appraisal come in the form of sensitivity analysis. Sensitivity analysis is based on the premise that change in the values of the key economic variables can bring about an effect on profitability. A particular case of sensitivity analysis is to take high, low and medium values of the key economic parameters and

compute the profitability for various combinations of these pessimistic, average and optimistic estimates, thus providing ranges of possible alternative results. Baum and Crosby (1988) undertook a comprehensive review of deterministic and probabilistic techniques employing a methodology of numerical examples. Their critique of the techniques is similar to those of Sykes and Patrick (1983). Their contribution was the recommendation of new techniques - the "Sliced Income" technique as a preferred alternative to the Risk Adjusted Discount Rate and Certainty Equivalent techniques in guiding UK investors when selecting between alternative investments. In essence, this method is a hybrid of the Risk Adjusted Discount Rate and Certainty Equivalent techniques. The adoption of this approach in Nigeria with the absence of data banks and computer proficiency could result in practical difficulties. Ajayi (1987) was able to compliment Umeh (1977) work on development appraisal.

In view of the foregoing, this study is aimed at appraising investment viability practice by Estate Surveyors and Valuers in Lagos State, Nigeria with a view to pave way for best practice that will allow consistency in evaluation approach across a wide range of projects. The focus of the study is to examine the investment appraisal techniques adopted by Estate Surveyors and Valuers in arriving at opinion of judgment that guides investors in decision making, the factor (s) that guides their selection these appraisal techniques, the viability criteria considered Estate Surveyors and Valuers when carrying out viability study and assessment of the problem (s) that may arise from the use of appraisal tools that cannot adequately measure the investor's objective.

2. Methodology

Lagos State is the former federal capital of Nigeria and also known to be the commercial nerve of the country. Aside from Cairo, Lagos is the hub where both national and international events are executed and remains the fastest growing urban area in Africa (Oladokun, Gbadegesin and Ogunba, 2010). As at 2006, the population stands at above 14 million people due to the presence of most forms of land use related activities (Omoogun, 2006). Lagos State harbours "60% of the nation's industrial and economic establishment and 80% of the nations of the total value added of manufacturing activities in the country" (Omoogun, 2006). Lagos metropolis, one of the most important commercial cities in Nigeria, forms the base of our study area. Lagos metropolis is located in the South-Western Coast of Nigeria along the Bight of Benin approximately between latitude 6^0 40' North and 4^0 30' South of Equator and between longitude 2^0 05' West and 4^0 20' East of Greenwich Meridian. Lagos State covers an area of about 3,577sq.km representing 0.4 percent of Nigerian territorial land mass (Esubiyi, 1994). Lagos state, with its capital at Ikeja, was created on the 17th of May, 1967 by virtue of the State Creation and Transitional Provision Decree (No 14) of 1967, which restructured Nigeria into twelve states. Lagos had a population of 5,685,781 people out of a national population of 88,515,501 based on the 1991 provisional census figures. In the economic sense, the metropolis has grown from a small fishing settlement to become the most important center of commerce, finance and maritime activities in Nigeria, housing headquarters of several banks, industries and commercial enterprises. It also contains the nation's largest seaport and international airport. The main commercial districts of the metropolis as identified by Ogunba (1997) are Victoria Island, Ikoyi, Lagos Island, Yaba/Surulere and Ikeja. Ogunba pointed out that firm of Estate Surveyors and Valuers aggregate at these commercial districts where the property market is most active. This study adopted Ogunba's (1997) classification of Lagos metropolis into economic nuclei and this form the basis for this research work.

The target population for this study consists of Registered Estate Surveyors and Valuers in Lagos State. By virtue of Decree 24 of 1975, Estate Surveyors and Valuers are the only professional statutorily empowered to undertake valuation of proprietary interests in property and related assets in Nigeria. The data for this study will be obtained from the Estate Surveyors and Valuers who are duly registered with Estate Surveyors and Valuers Registration Board of Nigeria (ESVARBON), and have practicing firms in Lagos. Eighty-seven (87) structured questionnaires were randomly administered on the target population questionnaires and the response was used for the data analysis towards achieving the goal of the research. The survey approach was used for this study and the findings analyzed using descriptive statistics. The questionnaire was structured to examine the types of viability criteria mostly considered by Valuers, the method of appraisal often employed, assessment of the problems emanating from employing appraisal technique that does not match its intended purpose, and factors that are considered before selecting the choice of appraisal technique. The result from the analyses of these data forms the basis for inference. The descriptive statistics computed on the sampled data provides the basis on which inferences was made about the population. The Weighted Mean Score (W.M.S) was used for the presentation of the result. This was achieved by assigning numerical values to respondent's rating on factors identified. The W.M.S method was used due to its simplicity and ease of communicating result.

3. Discussion of results

Table 1 reveals that 18.39% of the respondents were principal/ managing partners of the firms, 35.63% were branch managers, 39.08% were resident Estate Surveyors and Valuers, while 7.1% represents other designations such as admin staff, confidential secretary and official designations. From the Table, it can also be observed that 39.08% of the respondents had working experience ranging between 1 – 5 years, 32.18% of the respondents have been in practice between 6 – 10 years, while 10.34% have been in practice between 11 – 15 years and 18.40% were in practice for over 15 years. This shows that the most of the respondents had the required working experience that could make the information reliable.

Table 1 *Characteristics of the Respondents*

Status	Response	Percentage
Principal/Managing partner	16	18.39
Branch Manager	31	35.63
Resident Estate Surveyor and Valuers	34	39.08
Others	6	6.90
Total	**87**	**100.00**
Years of Experience		
1-5	34	39.08
6 - 10	28	32.18
11 - 15	9	10.34
Above 15	16	18.40
Total	**87**	**100.00**

Table 2 showed the responses of Estate Surveyors and Valuers in relation to how frequent do they receive instructions to carry out feasibility and viability appraisal in their organization. From the Table, it was revealed that 35.63% of the respondents do fairly frequent secure instructions to carry out such task, 25.29% frequently receive such instructions, while 28.74% and 10.34% of the respondents are of the opinion that they do receive such instructions most frequently and least frequently respectively. The Table also revealed that none of the respondents opined that they had never received instruction for carry-

Table 3 *Use of Appraisals Techniques*

Appraisal Techniques	Most Often Used (4)	Often Used (3)	Seldom Used (2)	Not Used (1)	Mean Score	Rank
Payback Period	62.43	33.30	4.27	0.00	3.57	1
Net Present Value	40.50	59.50	0.00	0.00	3.40	2
Internal Rate of Return	45.20	28.57	26.23	0.00	3.18	3
Sensitivity Analysis	28.60	48.20	16.60	6.60	2.99	4
Accounting Rate of Return	14.20	42.40	21.50	21.50	2.49	5
Residual Method	9.40	30.20	30.20	30.20	2.21	6
Risk Adjusted NPV	18.20	18.20	21.50	42.10	2.14	7
Monte Carlo Simulation	0.00	21.50	48.20	30.30	1.92	8
Weighted Average Rate of Return	0.00	21.50	48.20	30.30	1.92	8
Certainty Equivalent Method	0.00	21.50	48.20	30.30	1.92	8

ing out investment appraisal. This implied that most the respondents consent to the fact that sizeable numbers of investors do seek the advice of professionals before embarking on capital development projects.

Table 3 showed the frequency of usage of viability appraisals techniques in development appraisal by Estate Surveyors and Valuers. From the table, it was revealed that the Payback Period, which is one of the traditional methods of appraisal, is the most adopted appraisal technique in practice. This is evidenced with the mean score of 3.57 in Table 3. This is followed by the NPV and IRR methods with mean scores of 3.40 and 3.18 respectively, while the techniques that incorporate risk were not often employed by the appraisers. Though, the studies of Baum and Crosby (1988), Baum *et al*. (1997) and Ojo (2006) revealed that the traditional methods might not be in tune with the present day economic reality. The findings of this study showed that the practice of viability appraisal is still centered on the traditional methods of development appraisal. Modern methods of appraisal that incorporate measurement of risk and uncertainty such as Monte Carlo Simulation, Risk Adjustment Discounted Rate technique, Certainty Equivalent technique and Sliced Income technique are yet to be fully embraced in practice despite experts' view that these are the best methods that are more applicable under conditions of risk and uncertainty as is experienced in Nigeria today. Ogunba *et al*. (2005) noted that in the assessment of risk in development appraisal, the probability weighted cash flows (based on the net present cost technique) is the most appropriate method for the public developer client, Monte Carlo simulation for the private developer client, and certainty equivalent cash flows for clients that are development lenders. These are all modern appraisal techniques, which are not or rarely used by valuers.

Table 4 *Factors considered before selecting the choice of appraisal tools*

Factors	Very Sig (4)	Sig. (3)	Undecided (2)	Not Sig (1)	Mean Score	Rank
Investor's objective (s)	82.40	17.60	0.00	0.00	3.83	1
Economic inflationary trend	76.80	23.20	0.00	0.00	3.77	2
Suitable viability standards	63.90	36.10	0.00	0.00	3.64	3
Changes in rate of interest	42.90	38.60	0.00	18.50	3.06	4
Investor's level of risk tolerance	42.90	28.80	0.00	28.30	2.85	5

Table 4 showed the factors considered by Estate Surveyors and Valuers while selecting appraisal technique. Findings revealed that the objective (s) of the investor is the most significant factor being considered while selecting appraisal technique to be adopted. This is shown with a mean score of 3.83, closely followed by economy inflationary trend and suitable viability standards as they ranked 2nd and 3rd with mean scores of 3.77 and 3.64 respectively. Changes in interest rate ranked 4th with a mean score of 3.06, while the level of risk tolerance by investors ranked least with a mean score of 2.85. This implied that appraisers don't always consider how far the investors are ready to take risk in embarking on such investment. This corroborates with the findings of Ogunba *et al*. (2005) which examined the assessment of development appraisal risk with reference to client specific risk tolerance and find out that valuers do employ their own risk tolerance level while choosing the appraisal technique considered appropriate for an appraisal instead of that of the client. The study by Ojo (2006) also revealed that some appraisers do not even consider risk factors when selecting appraisal techniques instead they just choose that which are simple and easy to compute. The role played by Valuers in choosing the right appraisal technique is seen in the way they incorporate the functions in the table into their appraisals. Failure to critically look into these functions has led to wrong use of viability appraisal technique.

Table 5 *Viability Criteria Considered when Carrying out Viability Study*

Viability Criteria	Always (3)	Sometimes (2)	Not Considered (1)	Mean Score	Rank
Economic	100.00	0.00	0.00	3.00	1
Financial	100.00	0.00	0.00	3.00	1
Physical	73.56	26.44	0.00	2.74	3
Technological	43.68	56.32	0.00	2.44	4
Socio-cultural	50.58	32.18	17.24	2.33	5
Political	32.18	50.58	17.24	2.15	6

Table 5 revealed that both economic and financial viability criteria were majorly considered by appraisers when carrying out viability studies. This is shown with the mean scores of 3.00 each for both criteria respectively. This is followed by physical viability criteria with a mean score of 2.74; technological viability criteria with 2.44 mean score; socio-cultural viability criteria and political viability criteria have 2.33 and 2.51 mean scores respectively. This result shows that viability appraisal is mostly an issue of 'cost and benefit' implications of any proposed investment. This implied that investments that will thrive are usually hinged on economic and financial criteria.

Table 6 showed the responses to problems resulting from choosing a viability appraisal technique that cannot adequately measure investor's objective. 65.40% of the respondents agreed with the fact that the problems of actual return varying from the expected return and that of difficulty in the repayment of loans always result from usage of such viability technique, 28.20% were of the opinion that the use of such appraisal technique can lead to investment performance deviating from the investors objective while 38.20% and 29.50% opined that the problem can be as a result of the client not being able to manage the investment well thus exposing it to risk and foreclosure. The findings

also revealed that due to the choice of such appraisal technique, the actual return from the investment can varied with the expected returns. This finding corroborates that of Ezeokoli, Adebisi and Olukolajo (2014) which suggest that the use of wrong choice of viability criteria will bring about variance between the expected and actual return.

Table 6 *Problems that may arise from using an appraisal tool that cannot adequately measure investor's objective*

Problems	Agreed (3)	Neutral (2)	Dis-agreed (1)	Mean Score	Rank
Actual returns varied with its expected returns	65.40	34.60	0.00	2.66	1
Loan repayment difficulty	65.40	26.80	7.80	2.57	2
Developed properties has longer void periods	40.00	18.60	41.40	1.99	3
Performance deviating from investor's objectives	28.20	24.60	47.20	1.81	4
Exposure of clients to more risk	38.20	0.00	61.80	1.76	5
Foreclosure of mortgage properties by lenders	29.50	8.20	62.30	1.68	6

4. Conclusion and Recommendations

Investors do require and seek professional advice before embarking on project investments. The reliability of development appraisal greatly depends on the ability of the appraiser to accurately estimate the variable inputs used in the appraisal. These variable inputs include land price, landholding period, planning/building size, building cost and period, ancillary cost, professional fees, finance cost, lettable space, anticipated void period, rental value, investment yield, and required profit/return on investment. The susceptibility of these variable inputs to change makes the role of a valuer more pronounced. Viability investments are being practiced by Estate Surveyors and Valuers and must be done in order to cope with the global trend of the economy. Most appraisers execute an appraisal exercise in a way that is open and more suitable to them. Different appraisal tools are available for use in the determination of this exercise to aid decision making of an investment. This study established that the application of appropriate modern appraisal techniques is a difficult task for Estate Surveyors and Valuers in practice as it requires critical analysis of tools which are too cumbersome or requires rigorous mathematical application in which most appraisers are not too vast in. It is one thing for an appraiser to understand the variety of alternative techniques in development risk analysis and quite another to assess and employ the technique that is most appropriate for each occasion. The success of any viability study goes beyond knowing the objective(s) of the investor, but also the knowledge of the criteria upon which those objectives are based, the level of risk tolerance of the investor, change in interest rates as well as the trend of inflation in the economy. This will help to determine the nature of data to look out for and the appropriate appraisal technique to be employed in order to arrive at a good investment decision.

As a result of the findings, the following are recommended:

i. Estate Surveyors and Valuers whose opinion of value serves as a benchmark for investor's decision making should try as much as possible improve their learning culture on the use and adaptation of different appraisal tools. This is because the tool to be employed for investment analysis must be adequate and effective enough to cope with the global trend of improvement in the economy while also achieving an investor's objective.
ii. Appraisers should put into consideration other factors that can aid the attractiveness of an investment and not only concentrate on the investor's objective (s), economic inflationary trend, suitable viability standards, changes in rate of interest and investor's level of risk tolerance. This is necessary because most investors are ready to take the risk to embark on an investment.
iii. Since viability appraisal is mostly an issue of 'cost and benefit' implications of any proposed investment, appraisers should pay adequate attention to carefully consider the appropriate viability criteria for the proposed investment when carrying out viability study because it has been established that investments will thrive in economically and financially friendly environment.
iv. Problems can arise in an investment portfolio which may be as a result of an appraiser adopting an investment tool that cannot adequately measure the intended goal of the investment while advising the investor on the profitability and attractiveness of his investment portfolio. Therefore an appraiser should as much as possible endeavor to adopt tool that will not jeopardize the investor objective but one which can successfully guide a rational investor on investment viability.

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