



## A REVIEW OF CONCEPTUAL AND PRACTICAL PROBLEMS IN THE EVALUATION OF DEVELOPMENT PROJECTS IN NIGERIA

<sup>1</sup>ODUNNAIKE, JOSEPH S. AND <sup>2</sup>OLAGOKE-SALAMI, SEKINAT O.  
ESTATE MANAGEMENT AND VALUATION DEPARTMENT,  
THE FEDERAL POLYTECHNIC, ILARO, OGUN STATE, NIGERIA.

<sup>1</sup>[josephseun2002@yahoo.com](mailto:josephseun2002@yahoo.com), 08035733348; <sup>2</sup>[segeenaholagoke@gmail.com](mailto:segeenaholagoke@gmail.com), 08035459505

### ABSTRACT

*Investment in development projects is an inevitable activity for the growth and sustainable development of any country. These projects which include but not limited to real estate development are capital intensive, appraisal of the possibility and practicability of such projects is sine qua non to the execution and completion of such projects. This paper reviews the conceptual and practical problems encountered in the evaluation of developmental projects in Nigeria. The traditional and modern methods of evaluation such as Accounting rate of return, Payback period, Residual method, Net Present Value, Internal Rate of Return, Net Terminal Value, Discounted Payback Period and Discounted Probability Index were critically discussed. The method employed by investment advisors is crucial to the success of such investments. Development Projects executed by the Government of Abia State and Abuja Investment and Property Development Company (AIPDC) were some of the projects that failed due to appraisal problems among others discussed. This paper concludes that viability appraisal which is the bedrock of any successful investment, should be seriously and accurately handled by the experts and it must not only be carried out for sake of approval but must be holistically adhered to. The paper therefore recommended that Estate Surveyors and Valuers and other development appraisers should embrace the use of modern development appraisal techniques that incorporate risks while executing the task of investment appraisal in order to enhance appraisal accuracy.*

**KEYWORDS:** *Property Development, Evaluation, Developmental Projects, Investment*

### 1.0 INTRODUCTION

Property development is an inevitable activity especially in a developing country. Construction works of different nature will be on the increase, due to the impact of housing development on the growth of the economy. Despite the importance and effect of development projects on the nation, several of them are executed without development appraisals. Development appraisal which is different from valuation connotes a wider consideration of social, economic, political, legal, physical, technological

and financial aspects surrounding a development site, including an evaluation of the possible range of alternative uses to which it might be put and how that may be achieved. The key feature of a development appraisal is that, it provides a framework from which the developer can obtain a measure of the likely profit to be made from undertaken a project and also assist the developer, in identifying the maximum price that can be paid for a site in order to achieve an expected profit on cost. (Olaleye, 2017).



Development appraisal consists of two components, feasibility component and the viability component. Feasibility appraisal/analysis connotes a practical implementation of a project by examining a very broad perspective and the general climate for development, while viability on the other hand refers to the financial acceptability of a project by employing the various methods of project appraisal and risk analysis, to determine the profitability of a development scheme. (Olaleye, 2017, Ogbuefi, 2002).

Feasibility and viability appraisals are required as “conditions” for meeting statutory approvals either or securing development finance. When banks are considering giving loans to developers, the appraisal is a key requirement that must be met. Overall, the investor or financial institutions must determine whether or not a thorough feasibility study justified the project before the bank issues a loan commitment. It must also ensure that an unsound appraisal or analysis that does not reflect current and reasonably anticipated market conditions must be rejected (Beaman, 2012).

Oyetunji (2016) opined that so many investors usually make the mistake of embarking on projects before carrying out a feasibility and viability appraisal. This can be catastrophic on the performance of the projects. The investor would have made a decision to execute the project before carrying out a feasibility and viability study. The decision that is being taken often has its impact on the overall performance and the final outcome of some projects. Many people invest in failed project due to the wrong choice made while seeking for advice on proposed projects development. The objective of an investor is to maximize profit while minimizing risk; therefore, it is required of an

appraiser to employ the technique that is suitable in meeting the objective of a rational investor.

Okoh (2016) opined that in less developed countries such as some Asian and South American countries and all African countries, there are poverty, disease, hunger, environmental degradation, wars caused by ethnic conflicts, religious roots, boundary adjustment issues, unemployment; illiteracy and death. Here, very few development projects are subjected to analysis in order to ascertain whether a particular proposed project will be viable or not because of additional cost involved.

The study by Gambo *et al* (2012) on market research applicability among Nigerian Estate surveyors and valuers revealed that, Estate Surveyors and Valuers carry out market research in feasibility studies shabbily without the required competence, and that they do spend little or no time in carrying out market research compared to the onerous task required in market research. Ogunba *et al* (2005) study on development appraisal risk, also revealed that most development appraisers simply employ the risk analysis approach that suited them in the course of executing appraisal work. Ojo (2006) in his research carried out on commercial property developments in Lagos, discovered the inadequacy of appraisal services that were rendered by Estate Surveyors and Valuers

According to Ojo (2006), most development appraisal techniques employed by investment appraisers are criticized due to the simplicity assumptions on cost incidence and finance charges. A major concern for participants in the construction industry is the constant failure of development projects especially in Nigeria. One of the factors attributed to this is the application of inappropriate

methodology by the investment advisors. This study therefore seeks to assess the practice of feasibility and viability appraisal in Nigeria by reviewing the problems associated with the various developmental appraisal techniques.

## **2.0 LITERATURE REVIEW**

### **2.1 Conceptual Issues in Development Project Appraisals**

Bello (2013) opined 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. In Odeyomi (2007) opinion, two main methods are available for whether a project is profitable or otherwise. The method could either be traditional or contemporary. The traditional method includes: Accounting rate of return, Payback period and Residual method, while the modern method includes: Net present value, Internal rate of return, Net terminal value, Discounted payback period and Discounted probability index.

Okoh (2016) elaborated that the two main methods of determining the profitability of or otherwise of real estate project can also be referred to as the accounting (traditional) and discounting (modern) methods. Modern method of viability appraisal involves discounting process. The study by Okoh (2016) further noted that the discounting system

determines the present value of a future stream of income which is based on the principle of time value of money. This time value of money suggests the differentials between these two methods. In terms of mean returns, risk adjusted return, income growth and capital growth, Bello (2013) evaluated the relative performance of residential property and securities in Lagos and established that investment in ordinary share performed above that of residential property in absolute term and risk adjusted return. The study also showed that the risk associated with residential property is lower than that of ordinary shares. This shows that every form of investment is associated with one form of risk or the other. Even thou the Net Present Value (NPV) and Internal Rate of Return (IRR) are the main appraisal techniques widely adopted by Estate Surveyors and Valuers, the increasing complexity of development projects has required more sophisticated method for analysis (Raymond, 2001).

### **3.0 PRACTICAL PROBLEMS IN DEVELOPMENT APPRAISAL TECHNIQUES**

Development appraisal technique was meant to guide an investor in decision making concerning his proposed development. As a result, the appraiser can employ any of either the traditional or modern approach. The best method to be employed will depend on the factor surrounding the investment. However, Feasibility and viability appraisals are usually not accorded their critical position in the overall development equation but are only required as ‘mere conditions’ for meeting either statutory approvals or securing development finance, thus influencing technique(s) employed by valuers in carrying out the appraisals. This often leads to disastrous effect on the overall performance and the

final outcome of some projects. It was asserted that 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. 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 *et al.*, 2005, Gambo *et al* (2012).

Payback period is a traditional technique developed for risk adjustment in development appraisal. It focused on the time required to recoup the original cash outlay on the project. The decision to accept or reject in this technique was based on whether or not the project would pay back within desired time and as a ranking criterion, the development project with shorter payback time will ranked higher than those with longer payback periods (Ojo, 2006). The payback period was considered as a measure of risk, because of the uncertainty surrounding the future. This technique was criticized on the bases of not considering the time value of money. The discounted payback method was developed to overcome the criticism against the payback period method that it took no account of the time value of money. This technique focused on the time required to recoup the initial cash outlay in present value in cash flow terms. The technique is a hybrid of Net Present Value method of appraisal.

The Accounting Rate of Return as an appraisal technique measures the rate at which profit is expected to be made from an investment. The profit generated from the property development is expressed as a percentage of the capital outlay. The computation involved in this method of property development appraisal could be carried out in three

ways using the Optimum Criteria (Peak profit), First Year Return and Average Profit Methods. In this appraisal technique, the preferred project would be the one with the highest Accounting Rate of Return. The technique had the advantages of being simple to understand and calculate. However, the major weaknesses were its failure to consider both the time value and life differentials of the development project in its computation of the Rate of Returns. There were several ways of Computation and result could be subjected to misinterpretation unless the basis of computation is clearly stated. In order to overcome most of the identified problems, better development appraisal techniques were developed that took into consideration the time value of money. Such methods were the discounted Cash Flow methods, the Net Present Value (NPV) and Internal Rate of Return methods. Other variants such as Net Terminal Value method and Discounted Profitability Index were equally developed for property development appraisal. Gambo *et al* (2012) undertook a comprehensive review of deterministic and probabilistic techniques employing a methodology of numerical examples. Their contribution was the recommendation of new techniques - the “Sliced Income” technique, the Risk Adjusted Discount Rate and Certainty Equivalent techniques in guiding investors when selecting between alternative investments. In essence, this method is a hybrid of the Risk Adjusted Discount Rate and Certainty Equivalent techniques.

Espinoza (2015) opined that in order to provide more rational and informed decisions before the commencement of property development, the Risk Adjusted Cash Flow which can be practically known as the Certainty Equivalent Approach –was adopted by investors in the United Kingdom. His approach to adjusting for project’s cash flows that were

considered achievable with a reasonable and calculable degree of certainty. The approach involved developing probability distribution of possible present values associated with cash flow forecasts. Standard deviations of the perceived normal distribution of the expected cash flow were then used to objectively select the certainty equivalent income. Risk and return were then analyzed in terms of the probability of earning any specific present value, net present value or profitability commendable in adjusting index explicitly, but it is criticized in regard to the subjectivity in the choice of the cash flows. Oyetunji (2016) in his research on the assessment of the reliability of techniques employed in feasibility and viability appraisal focused on Estate Surveyors and Valuers in Akure revealed that 43.75% of the respondents rarely secure instructions to carry out feasibility and viability appraisal on most developmental projects, while NPV was the most adopted technique in feasibility appraisal. The study revealed that most of the Estate Surveyors and Valuers were aware of the availability of other modern appraisal techniques that incorporate risk but did not use it.

Orekan and Oladunni (2018) opined in their studies that the use of the traditional methods of development appraisal techniques do not consider the effect of risks, inflation, economic situation and other factors as may affect the development. The traditional methods are however also referred to as deterministic appraisal techniques as they do not incorporate risk in their computation, especially in an economy that is very susceptible to inflationary changes and uncertainty. These traditional methods can no more be relied upon in a situation where the economy is unstable, inflation is high, and there are

high interest and exchange rates as is the case in Nigeria. Jagun (2020) in her study recommends the incorporation of risk management into the feasibility and viability appraisal process implemented by Estate Surveyors and Valuers. It is envisaged that the process will protect investors from the potential risk factors associated with investments in property development.

#### **4.0 CASE STUDIES OF FAILED DEVELOPMENT PROJECTS IN NIGERIA DUE TO PRACTICAL AND CONCEPTUAL PROBLEMS OF DEVELOPMENT APPRAISAL**

The delivery of successful projects involves the use of tools and methods to achieve its objectives during the planning and execution phase, therefore, projects must be executed using a systematic and organised process in order to achieve success (PMI, 2013). According to UNIDO (2015), about 60% of projects fail in Nigeria. In a workshop organized by the United Nations Industrial Development Organisation (UNIDO) in collaboration with the Federal Ministry of Industry, Trade and Investment (FMITI) for Project Managers in the Ministries, Departments and Agencies (MDAs), Mr Mark Engelhardt, Consultant and Trainer for UNIDO said that projects are vulnerable to failure because of myriad problems including lack of initiative, appraisal methods and proper planning. Even though he acknowledged that the problems of project failure are not peculiar to Nigeria, he said projects success in the last 20 years have been within 38- 39 per cent within the country. Zuofa (2014) highlighted that Development projects embarked on by the Abuja Investment and Property Development Company (AIPDC) in Nigeria experienced failure and cost approximately N3.8billion. The appraisal and execution of the

project were instrumental to the failure of the project. Regardless of who defines project failure, a project can be classified as a total failure if it is abandoned before its completion stage (Heeks,

2006). Examples of failed development projects in Nigeria due to problems of appraisal and other factors are listed in the table below.

**Table 1: Failed Development Projects in Nigeria**

No.	Nature of development project	Location	Owner	Year of Commencement	Year of Abandonment
1	Road Construction	Ugwunagbo, Umunka road	Abia State Govt	2010	2013
2	Low Cost Housing	Ahoda, east Rivers State	Rives State Govt	2001	2003
3	Bridge	Eagle Island, P/H	Rives State Govt	2000	2006
4	IPP project	Ahoda, Rivers State	Federal Govt	2005	2007
5	Road Construction	Alike-Umuosochi-	NDDC/Imo State Govt	2011	2012

Source: Authors' Compilation, 2020.

## 5.0 CONCLUSION

Appraisal of property development projects is faced with a lot of challenges. It is one thing for an appraiser to understand the variety of alternative techniques in property development risk analysis and quite another to assess the technique that is most appropriate for each occasion. Most development appraisers, who include an analysis of risk in their development appraisals, simply picked the risk analysis approach that suited them. Viability appraisal, which is the bedrock of any successful investment, should be seriously and accurately handled by the experts, the application of appropriate appraisal technique that can cope with present day situation has become a difficult task for most appraisers. This can be attributable to their critical analysis of the tools as one too cumbersome

and requiring laborious mathematical application. Most appraisers in the course of undertaking feasibility assignment have widely embraced the use of NPV method as it is seen as the most reliable technique for investment appraisals. The overriding reason can be adjudged to being its recognition of the time value of money as the future is uncertain. Modern appraisal methods that incorporate risk and uncertainty are fully embraced in practice as established in the study. The modern appraisal techniques incorporating risk factors were developed to deal with the problems pose by the traditional method of appraisal. These methods has been tested and found to be more effective for correcting the problems encountered through wrong investment advice as a result of the use of traditional method of appraisal.

## 6.0 RECOMMENDATIONS

In light of the discussion above, Development Appraisers should consider the unstable nature of the economy in the course of executing their assignments so that the changing nature of the economy will not lead to a failed project as a result of the investment decision taken and the Estate Surveyors and Valuers should embrace the use of modern development appraisal techniques that incorporate risks while executing the task of investment appraisal in order to enhance appraisal accuracy.

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