Problem of Investment Analysis Occasioned by the Uncertainty of Factor Element in Imo State, Nigeria

Abstract

Uncertainty in property investment in Nigeria is associated with several factors that comprises of political, economic, environmental and social. In managing the uncertainty, various investment analysis which are grouped into; traditional, probabilistic and contemporary appraisal are adopted. The investment analysis procedures have their associated shortcomings in managing uncertainty factors and these were review in the present paper as regards to emerging market for property investment in Imo State. The review revealed that traditional investment analysis inadequately explores implications of connections between irreversibility; timing choice, probabilistic method and uncertainty do not provide needed guidance as concerns which course of action would assure optimum returns while the contemporary appraisal has the propensity for miscalculations and misinterpretation of appraisal estimate among others. Also, the review observed limited uncertainty studies in the interested market and therefore recommended further empirical studies.

Keyword: Property Investment, Real Estate Investment, Uncertainty, Risk, Investment Analysis

Introduction

The commitment of funds, capital or money for specific time period by investor in anticipating returns in future or some series or stream of revenue that would reward the investord for their risk, time and uncertainty on their capital invested is called investment (Reilly & Brown, 2011). Investment in property involves acquiring or disposal of properties and assets like land and

improvements these properties. Ng et al. (2017) stated that investment in real estate sector is now a common investment opportunity globally due to its unique features which is the common supposition that returns on investment for real estate business appreciate in terms, even during downtime economic conditions.

While investment in estate and properties is fixed in space and time and also involves utilization of substantial outlay of fund or capital, its capacity to give investors the anticipated and expected outcome is dependent on outlay of capital or fund from which uncertainty affects the supposed expectation (Ayodele and Olaleye, 2018). Property development could, therefore, be considered as entrepreneurial activity which involves certain measure of uncertainties and risks. Currently, complex techniques are employed in making decision on capital investment basically depending on capital budget theories due to risk elements, contingency factors, hazards and uncertainty, (Kaczmarek, 2015; Singh et al., 2012; Zhang et al., 2011). In this current social, geo-political, and economic uncertainty in the world, strategic monetary management is based on process of alterations, which requires re-examining the basic presumption in effective market hypothesis (Fama, 1970; Kengtharan, 2017) which would cut across conventional boundaries of monetary management. Increased instability in unpredictable alteration will create unhealthy competition than we have experienced in the business domain (Smith et al., 1989; Kengtharan, 2017). Therefore, efficient management of instabilities and uncertainties are crucial and usually complex issues in analyzing decision for capital investment (Kengatharan, 2017).

Uncertainty and instabilities which influence valuation are different from one county to another, from one local area to another due to difference in level of development in their market system, and their legal system (Beckerf, 2016). The issues of instability is globally recognised in assessment practice because it is currently being carried out, which encourage researcher to

examine the problem and present solution that could be obtained from these work like, the property market in Germany and practical technique for resolving issues of instability and uncertainty when there are inadequate comparable transaction conditions by transforming risk to risk rewards , the outcome re reveals that because of limitation in data for ascertaining idiosyncratic risk reward for estate asset is not possible yet due to strategies in this study to capture all possible risk rewards connected to ineffectiveness in the market (David et al., 2006). Kucharskastusiak (2013) in Poland present method for research concerning valuation instability in advanced market to encourage researchers in Poland to involve in global discuss and deceptively recognised in assessment practice since instability is integral to valuation process. Nigerian researchers such as Aluko et al. (2004) worked on issues of uncertainty and instability in valuation processes and how estate investor valuer could resolve such issues in their valuation records while others such as Ayodele and Olayele (2018) researched on means to managing instability, Aliyu (2017) worked on incorrectness and Ogunbo, (2004) worked on demand for correct and suitable data for valuation. Their results are substantial level of instability which are not suitable for making decision that concerns property investment, unavailability of competence valuation agents, poor compliance with valuation guidelines in areas of methods and quality of valuation reports.

This study concentrates on assessing the level to which instability element affect investment analysis in making investment decision. A consideration of effect of instability, information level problem and other complex issues on budget exercise give one perception that no substantial correct method and it is important to have multiple technique (Kaczmarek, 2015). Uncertainty indicators and their effect on making decision concerning investment differs across different nation due to the nature of culture, investment programs, politics, monetary programs, tax system

regulation and legal background of the country. Therefore, their research question for their study is "what are uncertainty factors that influence investment analysis and decision in emerging property investment in Imo State?"

Literature Review

Uncertainty and Its Classification

Uncertainty is defined as the disparity between the data information within the accessible or means of the valuation agents or users presently and information or data actually needed by valuation agents or user for better decision making (Verbeeten, 2006). Currently and according to Al-Harthy, (2010). uncertainty means situation or condition with numerous possible outcomes while r*isk* is the chances or propensity of loss or gain relating to a particular outcome

There are several categories for the concept of uncertainty as relate to investments as available in the literatures. Several scholars see uncertainties from different viewpoint. Therefore, classifying concept of uncertaintyy varies. Townsend (1969) stated that it is grouped or classified it as uncertainty in business and in project. It was later perceived in 1980s as uncertainty in the market and in the firms Seidler & Carmichael, (1981) grouped it as dynamic and static instability (Fanning, 1983). However, this concept was perceived in 1990s as calculated, operational and monetary uncertainties by Vojta, (1992), General, company-based and industry-based uncertainties by Miller, (1992), indirect and direct uncertainties according to Pringle and Cannoly, (1993) business and monetary uncertainties by Baril et al (1996) as well as endogenous and exogenous uncertainties by Folta et al (1998). Further, this concept was grouped n 2000s as market, company and industry specific uncertainties by Bulan et al (2005) and input, monetary, social and market uncertainties by Verbeeten, (2006).

Saunder et al. (2015) state that some sources of uncertainty and instability is grouped into five viewpoints which includes environmental, individual, complex, information and temporal perspectives.

i. *Environmental Perspective:* this viewpoint comprises of factors like turbulence in the environ, institutional value, decision-making procedures, threats from competitor, external industry and risks in the market. Instability from monetary environ comprises of market information, risks from the market, instability of monetary factors and incomplete information (Saunders et al., 2015).
ii. *Individual Perspective:* The instability or uncertainties from individual comprises of factors such as internal understanding condition of individual, uncertainty that exist in mind and conscience of people and differences in perception of people due to their psychological pattern and perception of uncertainty.
iii. *Complexity Perspective:* This dimension placed emphasis on factors like technology, process, diversity of business owners and inherent complex nature of some projects.
iv. *Information Perspective:* uncertainty in this case is concerned with information perspective which arises as a result of incomplete and incorrect information, poor knowledge, incomplete knowledge on cause and effect and not having capacity or ability to obtain accurate estimate.
v. *Temporal Perspective:* The source involve stage in project life pattern, project tempo and level of turbulence in the project.

Management of Uncertainty in Property Investment

Several researchers have examined the handling of uncertainties as concerned genteral decision regarding the investment and in particular to estate development in upcoming markets. The issue

of uncertainty management could be carried out in several ways; but these are widely grouped into three sets or groups. They comprise of conventional, probabilistic and contemporary assessment technique

Traditional Appraisal Techniques

Although there are several tools for evaluating the valuation of conventional investment in investment assessment processes, traditional methods can be widely classified into discounting and non-discounting assessment technique. Non-discounting investment assessment technique comprises of cash flow, rate of return and payback period. The discounted techniques involve NPV IRR, and PI among others. These are equally considered as factor useful when conducting Discount Cash Flow method and are mainly used to ascertain future glow of cash and usually serve as baseline for evaluating value of investment (Chance & Peterson, 2002).

Carmichael et al. (2011) noticed that when using conventional models for assessment of irreversible investment like estate business, it is crucial to take into consideration strategic usefulness of flexibility of investors in changing their decisions after commencing the project, and investment funds is considered as being held passively. Thus, their models could not resolve the issue of uncertainty adequate property investment assessment.

Probabilistic Appraisal Techniques

Probabilistic tmethods seems to be on certain departure from normal and conventional technique used in investment assessment. These methods, however do not provide substantial evaluation for different available options form investor; afford certain form of understating on options and pathways for making optimum decision concerning investment. Probabilistic methods comprises of techniques like sensitivity assessment, simulation assessment and decision trees assessment.

However, these probabilistic-based methods do not consider inherent chances needed to modify outlay of investment (Brealey et al., 2012) while simulation and sensitivity assessment can be utilized in assessing the opportunities available by expressing results from these decisions, they do not present optimum guidance that concern possible course of action that assure the investors optimum returns. Therefore, while sensitivity assessment gives them opportunity to assess the impact of alteration in estimated value, simulation assessment of the projects giving room for multi-factor modification. Both techniques give room for certain form of alteration in these factors and do not entirely and completely capture the condition that are involved in this investment according to Chance & Peterson, (2002). Based on consideration of decision tree, not minding that they provide mapping of other options, the use of one discount rate cancel all possible real factor that rates changes over investment of the entire project (Chance & Peterson, 2002).

Contemporary Appraisal Techniques

Several modern techniques are already presented in literature to handle uncertainty in estate related investment. In what seems as descriptive viewpoint, The study by Ward and Chapman (2003) suggested the importance of using holistic technique in managing uncertainty and instability in projects. This technique takes into consideration analysis of design of the project, base plans, nature of stakeholders of the project and investment goals. However, based on the facts that these techniques do not have quantitative assessment, its acceptance in handling instability and uncertainty in estate investment assessment could best be supported with other modern quantitative technique.

The research by Blokpool et al. (2005) and Reyman (2008) supposed that the using scrum-based bases. The scrum-based procedure designed by Schwaber and Sutherland (2002) is an

incremental bases employed in project management whereas scrum procedure was first designed for handling product development procedure, it has been employe in other areas like management of project management software, team maintenance software and recent project program management (Lina & Dan, 2012).

Problem of Investment Analysis Occasioned by the Uncertainty in Emerging Property Investment in Imo State

In Nigeria, property and estate investment are commonly subjected to unforeseeable and unforecastable future which encompasss uncertainties and several forms of risks that affects anticipated and predicted returns level which must compensate for risks undertaken by investors (Nnamani, 2017). Risks involved n real estate investment arise from different factors that comprises of social, economic, political, technological and environmental. The erratic and instable rate of exchange; high and instable interest rate; inflation that influence rental revenue and capital along with socio-political uncertainties like militancy, kidnapping and insurgency have triggered failure of estate investment and monetary distresses (Nnamani, 2017). Some projects on real estate investment are abandoned due to completion issues; some hardly break even, or provide neither reasonable revenue nor fair return for investor. Some borrowers of fund lost their capital because of inability in repaying loan from borrowed firms for estate investment project; and, the investment is forese by involved lender (Nnamani, 2017).

One main issue faced by estate investors, particularly in Nigeria, is concerned issues of making good and informed decision concerning their investment arising from numerous options of investment available for investors to make their choice (Oyewole, 2014) and recently scholar on performance of property investment, whether indirect or direct, have become crucial particularly now that measures for performance of estate investment has gained more preference globally

with Nigeria inclusive (Agava et al., 2022). Uncertainty arises from poor information and knowledge concerning all information that could be employed in valuating input factors are certain thereby leading to value or revenue uncertain (Yakubu et al., 2022). All these could be corrected with several technique for analyzing investment instead of taking one defined and producte simple point value; however, most of these investment analyses tools have some inherent problem associated with several uncertainty factors.

Considering these issues concerning uncertainty in investing in estate and property, Yakubu et al. (2022) stated that "inadequate data, instability in market, inadequate skill in analysing data, errors in measurement and adjustment, inadequate technique for business valuation and date extrapolation are the main and possible source of property business uncertainty Ayedun et al. (2012) worked on inaccuracy and variation in valuation in Lagos estate investment and their results failed to consider market data, to competencyy in valuer, adhering to regulation and standard of valuation used valuation methods and valuation report quality. Most resident estate valuation are based mortgage borrowing thus current research sone by Dugeri (2017) evaluated the standard practice among specialised value agencies, by examining degree of awareness of global valuation guidelines available in Nigeria for value agencies; and they come to conclude that unguided issue of compelled sale value in advising for mortgage loan is able to creates uncertainty and instability in bank loan system. Aliyu (2017) examined those factors and variables that influence mortgage valuation of resident estate market in Kaduna areas and they concludes that poor rental evidence, and neglecting suitable and adequate procedures of obtaining opinion for valuing these factors are not accurate in resident mortgage valuation.

Globally, the profit nature of any investments in any nation depends on macroeconomics indicators prevalent in that country which concerns with the behaviour and attribute of their

entire economy or economic methods rather than individual behaviour, individual firms or markets that is considered as the main indicator of their microeconomics features (Awa et al., 2019). As these dynamics of macroeconomics indicators influence preference of investment, it become clear that these indicators also influence returns of investment in property. Pettinger (2017) equally noted that interest rates, monetary development, expectations, development in technology, fund and capital availability from financial firms, others factors like depreciation, inflation, state programs and that influence investment decisions.

The concepts and ideas surrounding uncertainty has not been neglected in project management domain (Meyer et al., 2002) and it not considered as relatively recent concept (Ekung & Onwusonye, 2015). Also, the connections between uncertainty, instability and investment presented novel research conditions, it hasn't had better prediction capability. globally, investment analyses are used in handling uncertainty and instability in investment and in making decision concerning their investment; however, this instability and uncertainty equally presented conditions that uses analyses challenges. The conventional assessment methods have inadequately emphasised implications of connections between uncertainties, irreversibility and choice of timing in decision regarding investment (Ayodele & Olaleye, 2018). Considering these probabilistic assessment methods, Sayce et al. (2006) supposed that whereas sensitivity assessment formed important condition in processes of risk assessment, but it not considered as risk assessment method. They also stated that "the erroneous perspective among several persons concerning estate investment sector is that the conventional sensitivity analysis and utilization of table is a detailed and substantial technique for risk analysis as concerned estate investment. One key problem associated with scenario analysis is that it lacks evident on data from the market on which it chooses the probabilities, therefore even when these scenarios are painstakingly

designed and executed, it is still based on particular and erroneous assessments data (Nnamani, 2017).

The research by Yeo and Qui (2003) make argument for the importance of using of real options as means for handling uncertainty and instability estate investment. in corroboration to this viewpoint, this research by Săcui and Dumitru (2012) opined that because of the issues and shortcomings associated with conventional models as concern handling uncertainties within the property investment which arise from dynamic and unstable business environs, actual options techniques have become common in selecting, valuing and handling investments under unstable conditions. Other researchers like Throupe et al. (2012) and Morano et al. (2014) aligned with this viewpoint on efficiency of real technique as means for handling instability in estate investment. Table 1 showed summary of some issues relating to investment analysis arising from impact of instability in handling these issues.

Table 1: Problem Associated with Investment Analysis Due to the Influence of Uncertainty

Investment Analysis	**Methods**	**Benefits**	**Associated Problem**
Traditional Appraisal Methods	1. non-discounting (Payback period, Accounting rate of return, maximum cash exposure, etc.) 2. Discounting (NPV, IRR)	1. Useful in appraising safe assets 2. Simplicity in calculation and decision rules 3. Makes use of fewer data inputs	1. Does not adequately explore the implications of the relationship between irreversibility, uncertainty and timing choice. 2. Don't consider the importance of flexibility of investors after commencing the project 3. Invested fund is considered as passively fund 4. Poor consistency in average Cost for capital and discounted rate
Probabilistic Assessment techniques	1. Sensitivity Assessment 2. Simulation Assessment 3. Decision Tree	1. Afford knowledge into possible options and pathways	1. Do not recognize inherent opportunity in modifying outlay of investment 2. Do not provide optimum guidance that concern course of action which assure optimum

	Assessment etc.		returns 3. Using single discount rate
Contemporary Assessment technique	1. Scrum based framework 2. Stochastic Program 3. Real Options Assessment etc.	1. Provide capacity to initiate flexibility in invested project, particularly in unbalanced markets. 2. Explores connection among and timing choice of the investor	1. Tendencies to miscalculate and misinterpret assessment technique 2. Susceptible to risk in the model 3. inability to meet some set assumptions like normality and random presumptions, 4. May be discouraged in markets where there are insufficient data for the model input.

Adapted from: Ayodele and Olaleye (2018)

Conclusion and Recommendations

The study explores various challenges associated with investment analysis occasioned by the uncertainty in the emerging market of property investment in Imo state. Investment in estate is determined by forces of supply and demand, which enforced the importance or need to assess of cash flows in project to ascertain profitability of project. However, assessment estimates are influenced by different uncertainties that could be come from issues domicile in the project, space market or integration of internal and external factors. These factors could hinder swift realization of the profit capabilities in the investment, thus, necessitate the essence of accounting for these factors of uncertainty. Hence, profit making capability depends or relies on effective handling of project instabilities and uncertainties

Investment in estate and property is among the most challenging investment option in businesses. Unfortunately, the business sector has poor reputation as concern handling issues of uncertainty, leading to failure of their investment and other performing below normal expectation or not performing. The fluctuating situation in estate investment like change in security for revenue flow, increased complex and volatile nature of project, and increased knowledge and interest of

investors. made the market very risky and unstable. These issues concerning business environment gives suitable incentive and importance to value agents to consider the essence of uncertainty when analyzing estate investment.

The review identified limited studies on uncertainty and its management in the emerging property investment markets in Imo state and therefore recommended further empirical studies to be conducted to establish the common uncertainty factors in the emerging market and associated investment analysis adopted in overcoming the issues related in uncertainty factors.

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