

Research

Evaluation of the Usability of Feasibility and Viability Appraisal in Commercial Real Estate in Oyo State, Nigeria.

Arowolo Babatunde Emmanuel

Lecturer, Department of Estate Management and Valuation, The Polytechnic, Ibadan Oyo State, Nigeria.

Correspondence should be addressed to: arowolobabs@gmail.com

Abstract: This study evaluates the usability, frequency, and reliability of feasibility and viability appraisal techniques in commercial real estate projects, with particular reference to the experiences of Estate Surveyors and Valuers practicing in Oyo State, Nigeria. The research targeted all thirty-four (34) Estate Surveying and Valuation firms registered with the Estate Surveyors and Valuers Registration Board of Nigeria (ESVARBON) operating within Ibadan, from which thirty (30) valid responses were obtained and analyzed using descriptive statistics. The study explored the frequency of instructions received for feasibility appraisals, the usage patterns of various appraisal techniques, the perceived reliability of these methods, and the awareness and applicability of modern appraisal tools such as Monte Carlo Simulation, Risk-Adjusted NPV, and Certainty Equivalent. Findings revealed that Internal Rate of Return (IRR) and Net Present Value (NPV) are the most frequently used and most reliable techniques, while advanced tools like Risk-Adjusted NPV and Monte Carlo Simulation remain underutilized due to lack of understanding and technical expertise. The study also observed limited adoption of modern tools owing to inadequate data infrastructure, low professional capacity in financial modeling, and regulatory gaps. Nonetheless, the respondents acknowledged the significance of feasibility and viability appraisals in mitigating risk and guiding sound investment decisions in the commercial real estate market. The study recommends the incorporation of modern appraisal tools through capacity building, the establishment of a centralized real estate data repository, regulatory reforms mandating feasibility studies for major projects, and improved collaboration with financial institutions. Overall, enhancing the technical competence and regulatory support for feasibility and viability studies can strengthen the investment climate and promote sustainable commercial real estate development in Oyo State.

Keywords: Feasibility appraisal, Viability study, Real estate investment, Valuation techniques, Oyo State, IRR, NPV, Risk analysis.

1. Introduction

The growth of commercial real estate is an essential component of economic development, particularly in emerging markets like Oyo State, Nigeria. Feasibility and viability appraisals play a significant role in determining the success or failure of real estate projects, providing an assessment of the financial, technical, and operational aspects before investment decisions are made. Estate Surveyors and Valuers (ESVs) are tasked with conducting these appraisals, ensuring that investors and developers have a clear understanding of the risks and benefits involved.

However, there are concerns about the effectiveness and usability of these appraisals in practice. This research investigates the experiences of ESVs in Oyo State to better understand how they perceive the current tools, techniques, and processes used in feasibility and viability appraisals. The study aims to uncover the key challenges faced by these professionals and suggest possible improvements that could enhance the reliability and usability of appraisals in commercial real estate.

2. Statement of Research Problem

Despite the critical role of feasibility and viability appraisals in commercial real estate development, there is limited empirical evidence on how these appraisals are conducted and utilized in Oyo State. Estate Surveyors and Valuers, as key stakeholders, often face challenges such as outdated methodologies, lack of adequate data, and the influence of external factors like economic instability, all of which may affect the reliability of appraisals. Additionally, the actual usability of these appraisals in guiding investment decisions remains underexplored. This research seeks to fill this gap by evaluating the experiences of ESVs in Oyo State, highlighting the problems they encounter, and proposing strategies for improvement.

3. Literature Review

The usability of feasibility and viability appraisals in commercial real estate has garnered significant attention, especially in emerging markets where real estate development is a key to economic growth. Feasibility and viability appraisals are critical tools for assessing the potential success of real estate projects. They evaluate a project's financial, technical, and environmental factors to ensure it aligns with the investors' expectations and market conditions (Manning & Peiser, 2018). In commercial real estate, the importance of these appraisals lies in their ability to minimize risks by providing

developers and investors with data-driven insights on potential returns, construction costs, and market demand (Zhou et al., 2019).

According to Nwuba, Egwuatu, and Umeh (2020), feasibility appraisals are especially important in Nigeria due to the volatile real estate market, which is affected by fluctuating economic factors such as inflation, exchange rates, and policy shifts. Their study found that Estate Surveyors and Valuers often rely heavily on these appraisals to guide clients, though the usability of the tools they employ can be limited by outdated or incomplete data.

Recent studies have highlighted the importance of integrating modern techniques such as Geographic Information Systems (GIS) and advanced statistical models into feasibility appraisals to improve accuracy and usability (Ajayi & Ajibola, 2019). GIS tools, in particular, are praised for their ability to offer spatial analysis, which is crucial in evaluating commercial real estate projects in rapidly growing urban areas like Oyo State (Amusan et al., 2021).

In Nigeria, the traditional methods of feasibility appraisals are still prevalent, particularly among older practitioners who may not be familiar with or have access to advanced tools. However, Oke and Amidu (2022) argue that adopting innovative techniques can significantly improve the reliability of appraisals. Their research suggests that younger Estate Surveyors and Valuers are more inclined to incorporate technology into their appraisals, leading to more accurate and actionable insights.

Challenges in Conducting Feasibility and Viability Appraisals

While appraisals are fundamental to real estate development, several challenges affect their effectiveness, especially in developing economies like Nigeria. One of the primary issues is the lack of reliable and up-to-date data, as identified by Olaleye and Aluko (2018). In their study of real estate markets in southwestern Nigeria, they found that many ESVs faced difficulties in accessing accurate market data on property prices, construction costs, and rental yields, which undermines the credibility of their appraisals. Economic instability also poses a significant challenge. Oyediran et al. (2021) found that frequent changes in government policies, inflation, and fluctuating exchange rates in Nigeria create uncertainties that ESVs find difficult to account for in their appraisals. The study emphasizes the need for more dynamic models that can accommodate these economic fluctuations. Despite the usefulness of these methods, the applicability of feasibility and

viability appraisals in Nigeria's commercial real estate sector faces significant challenges. These include:

- **Data Limitations:** One of the most pressing issues is the lack of reliable market data, especially concerning property values, construction costs, and rental yields. As Olaleye and Aluko (2018) note, the absence of updated and credible data hampers the accuracy of feasibility studies, especially when compared to more developed markets.
- **Economic Volatility:** The fluctuating Nigerian economy presents a major challenge in applying feasibility and viability appraisals. The unpredictability of exchange rates, inflation, and interest rates make it difficult to rely on financial forecasts (Oyediran et al., 2021).
- **Limited Use of Modern Tools:** While GIS and advanced financial models are available, they are not widely used due to the high cost of implementation and lack of skilled professionals in the field. Amusan et al. (2021) highlight that many Estate Surveyors and Valuers in Oyo State still rely on traditional methods, which can undermine the accuracy of appraisals.

The Role of Estate Surveyors and Valuers in Oyo State

Estate Surveyors and Valuers play a pivotal role in commercial real estate development in Oyo State. As professionals responsible for providing accurate feasibility and viability appraisals, they are central to helping developers and investors make informed decisions. However, their work is often constrained by external factors such as inconsistent government policies, legal restrictions, and economic instability (Akinyemi et al., 2020).

Nwuba and Adeyemo (2019) highlighted that despite these constraints, ESVs in Oyo State are increasingly adopting best practices from global markets, including the use of discounted cash flow (DCF) analysis and risk assessment models. Their study, which surveyed over 100 ESVs in the region, found that while many were familiar with these advanced methods, a significant number still preferred traditional methods due to the lack of training and resources.

Usability of Appraisals in Decision Making

Another consideration in this review is the actual usability of appraisals in guiding real estate investment decisions. A study by Bello and Adedoyin (2022) found that although feasibility and viability appraisals are regularly conducted, their influence on decision-making is often limited by non-technical factors such as political interference and

developer biases. Their findings suggest that many developers in Oyo State rely on personal networks and informal consultations rather than strictly adhering to professional appraisals, which diminishes the value of the appraisals conducted by ESVs. Similarly, Ojo et al. (2023) found that while appraisals are theoretically sound, their practical application is often undermined by challenges such as delayed project approvals and the lack of comprehensive market data. The study calls for a more robust regulatory framework to ensure that feasibility and viability appraisals are not only accurate but also effectively utilized in commercial real estate projects.

Moreover, this indicated the critical role that feasibility and viability appraisals play in commercial real estate, particularly in markets like Oyo State, Nigeria. While Estate Surveyors and Valuers bring significant expertise to these appraisals, their effectiveness is often limited by challenges such as outdated methodologies, lack of reliable data, and external economic factors. Emerging technologies like GIS and advanced financial models offer promising solutions, but their adoption remains uneven. Future research should focus on improving the accessibility and usability of appraisal tools, ensuring that they are integrated more effectively into the decision-making processes of real estate developers and investors.

Applicability of Feasibility and Viability Appraisal in Commercial Real Estate

Feasibility and viability appraisals are essential tools in commercial real estate, designed to determine whether a proposed project is financially, technically, and operationally feasible. Their applicability in guiding decision-making for developers, investors, and financial institutions has been widely studied, particularly in markets with fluctuating economic conditions like Nigeria. This section explores the applicability of these appraisals in commercial real estate, focusing on their key components and methods.

a. Components of Feasibility and Viability Appraisals

Feasibility and viability appraisals assess various aspects of commercial real estate projects, including market demand, financial performance, technical requirements, and environmental sustainability. These components help stakeholders understand whether a project aligns with their objectives and market conditions (Manning & Peiser, 2018). The appraisals typically consist of several elements:

Market Feasibility: This assesses whether there is sufficient demand for the commercial property. It involves analyzing local demographics, economic growth trends, and competition (Li, Wang, & Zhou, 2020).

Technical Feasibility: This examines whether the project can be executed within the technological and legal frameworks of the location, assessing factors like zoning laws, construction permits, and environmental impact assessments (Rudland & Forsythe, 2018).

Financial Feasibility: This is a core element that evaluates the financial return on investment. Techniques like the Net Present Value (NPV), Internal Rate of Return (IRR), and Discounted Cash Flow (DCF) analysis are often used to predict the project's profitability (Cheng et al., 2019).

Operational Viability: This assesses the long-term sustainability of the project, including management, operational costs, and the ability to generate stable rental income (Olatunji et al., 2021).

b. Applicability of Appraisals in Emerging Markets

In emerging markets like Nigeria, feasibility and viability appraisals play an even more critical role due to the volatility and uncertainty of the real estate sector (Nwuba & Adeyemo, 2019). In Oyo State, where commercial real estate is growing but also faces challenges like economic instability, these appraisals provide necessary risk mitigation for both local and international investors. According to Nwuba, Egwuatu, and Umeh (2020), the applicability of appraisals is particularly important in reducing investment risks by offering a detailed analysis of potential obstacles. In Nigeria's volatile market, such appraisals serve as a buffer against unforeseen economic shifts, ensuring that commercial properties are not only profitable but also adaptable to changing conditions.

4. Research Methodology

The target population for this study is the Thirty-four (34) registered firms of Estate Surveyors and Valuers with Estate Surveyors and Valuers Registration Board of Nigerian (ESVARBON) and are practicing in Ibadan. Questionnaires were administered to these thirty-four (34) out of which only thirty (30) were correctly filled and retrieved and employed for the validity of the study. Closed/ well structured questionnaires were designed and distributed to the targeted population. These questionnaires contained all the relevant information necessary to arrive at a reasonable conclusion. Description statistics was then used in the analysis of the collected data. The result from the analysis of these data form the basis for inferences made in this study.

5. Result and Discussion

Table 1: How often do you receive Instruction to Execute Feasibility and Viability Appraisal?

Response	Not at all	Less frequent	Regularly	Most often	Total
Percentage	12.50	43.75	12.50	31.25	100.00

Source: Field survey, 2025

Table 1 confirmed that the largest proportion (43.75%) of respondents who indicated "less frequent" suggests that feasibility and viability appraisals are primarily conducted when there is a perceived need. This aligns with Akinola et al. (2015), who argue that feasibility studies are often employed in specific scenarios involving high capital expenditure, complex urban developments, or projects with uncertain outcomes. The infrequent use of appraisals in some cases could be attributed to stakeholders' over-reliance on prior market knowledge or the assumption that smaller or routine projects do not require such detailed evaluations. Also, 31.25% of respondents receive instructions to execute appraisals most often reflects the role that appraisals play in reducing uncertainty and ensuring that real estate projects are viable, especially in high-risk environments. Mensah (2017) emphasizes that feasibility studies are critical in evaluating project risks, financing options, and the socio-economic impact of commercial real estate projects. In the Oyo State context, where market fluctuations and regulatory hurdles can impact real estate outcomes, regular use of appraisals can provide a safeguard against potential failures. The 12.50% of respondents who indicated "not at all" or "regularly" could reflect the varying levels of knowledge and expertise in feasibility and viability appraisals across stakeholders. According to Umeh and Ezeokafor (2019), the cost and complexity of conducting appraisals, especially for smaller firms or individual investors, can discourage their frequent use, even when they might be beneficial. Similarly, Egbu (2016) points out that in developing regions, there is often an underutilization of formal project evaluation methods due to financial constraints and the perceived complexity of the process. While the combination of respondents who regularly (12.50%) or most often (31.25%) use appraisals points to an emerging trend where decision-makers increasingly recognize the benefits of feasibility and viability studies in ensuring successful outcomes in real estate development. As commercial real estate markets in Oyo State grow, it is likely that more stakeholders will adopt these tools to maximize profitability and minimize risk.

Table 2: *Frequency of Usage of Feasibility and viability Appraisal Techniques*

Techniques	Mostly use Always	Always but not Mostly use	Rarely use	Never use	Mean Value	Rank
NPV	50.00	31.25	12.50	6.25	3.25	2 nd
IRR	62.50	25.00	12.50	0.00	3.50	1 st
Payback Period	12.50	12.50	31.25	43.75	1.94	4 th
ARR	18.75	50.00	18.75	12.50	2.75	3 rd
Sensitivity Analysis	12.50	18.75	25.00	37.50	1.94	4 th
Residual	12.50	12.50	25.00	50.00	1.88	6 th
Risk Adjusted NPV	0.00	25.00	18.75	43.75	1.56	7 th

Source: Field survey, 2025

Table 2 shows the frequency of usage of feasibility and viability appraisal techniques in commercial real estate projects in Oyo State, which indicated that Internal Rate of Return (IRR) is the most frequently, used appraisal technique, ranked 1st with a mean value of 3.50 and 62.50% of respondents indicating it is used "mostly always." This high ranking suggests that IRR is favored because it provides a direct measurement of the project's profitability by calculating the rate of return expected over the life of the investment. According to Brealey et al. (2020), IRR is often preferred by decision-makers because it considers the time value of money and offers an intuitive percentage figure that is easy to interpret when comparing multiple investment options. Additionally, real estate professionals might prefer IRR because it accommodates varying cash flow patterns, making it suitable for complex and long-term projects.

Net Present Value (NPV) is ranked 2nd with a mean value of 3.25 and a "mostly use always" response rate of 50.00%. NPV is widely used in project appraisal because it directly quantifies the monetary value added by a project, offering a more precise understanding of profitability than IRR. As Kaplan and Ruback (2015) highlight, NPV is advantageous because it measures value in absolute terms and can adjust for risk by using a discount rate. Despite its strengths, NPV might be used slightly less frequently than IRR

because it requires the selection of a discount rate, which can introduce subjectivity and complexity.

Accounting Rate of Return (ARR) is ranked 3rd with a mean value of 2.75 and 50.00% of respondents indicating that it is "always but not mostly" used. ARR calculates the return on investment by dividing the average annual profit by the initial investment, providing a simple measure of profitability. However, as Fraser and Ormiston (2016) note, ARR is less favored compared to IRR and NPV because it does not account for the time value of money, making it less accurate in evaluating long-term projects. Nonetheless, it is still used because of its simplicity and ease of understanding, particularly for smaller projects or where detailed financial modeling is unnecessary.

Payback Period (PBP) ranked 4th with a mean value of 1.94, the technique has a significant "never use" response rate of 43.75%. PBP is a basic method that measures how quickly an investment can be recovered, making it a simple but limited tool. Its low usage reflects its limitations, particularly in commercial real estate projects, where cash flows extend over long periods and projects are subject to risks that PBP cannot account for. As Harvey and Graham (2017) argue, PBP ignores the time value of money and any benefits that occur after the payback period, which can lead to suboptimal investment decisions.

Sensitivity Analysis also ranked 4th with a mean value of 1.94, shows a "never use" response rate of 37.50%. Sensitivity analysis assesses how changes in key assumptions, such as costs or revenues, affect project outcomes. Despite its utility in assessing risk and variability, it is underutilized, possibly due to its complexity. According to Damodaran (2015), sensitivity analysis is often seen as too sophisticated for routine use in regions where data availability and expertise in advanced financial modeling may be limited, as might be the case in Oyo State.

While Residual Technique ranked 6th with a mean value of 1.88 and a "never use" response rate of 50.00%, is primarily used to determine the residual value of land after accounting for development costs. Its low usage might be attributed to its limited application in early project stages, particularly in Oyo State, where many developments may focus more on income generation rather than residual land value. Evans (2013) emphasizes that while the residual method is useful for land development scenarios, its relevance is narrower compared to methods like NPV and IRR. Risk-Adjusted NPV ranked 7th with a mean value of 1.56% as a "never use" response rate of 43.75%. The relatively low usage suggests that adjusting NPV for risk is not common practice, possibly due to the

difficulty in quantifying risk premiums or because stakeholders prefer simpler methods. Trigeorgis and Tsekrekos (2018) note that while risk-adjusted NPV is valuable for incorporating uncertainty, its complexity makes it less accessible, particularly in markets where advanced financial modeling is not widespread. The data reflects the preference for techniques that are intuitive and easy to apply, such as IRR and NPV, in the commercial real estate sector in Oyo State.

Table 3: *Reliability of the Techniques used for Feasibility and Viability Appraisal*

Appraisal Techniques	Highly Reliable	Reliable	Averagely Reliable	Not Reliable	Mean Value	Rank
NPV	62.50	25.00	12.50	0.00	3.50	1
Payback Period	50.00	37.50	12.50	0.00	3.38	2
IRR	50.00	31.25	12.50	6.25	3.25	3
Sensitivity Analysis	31.25	25.00	18.75	25.00	2.63	4
Risk Adjusted NPV	12.50	37.50	37.50	12.50	2.50	5
ARR	18.75	18.75	43.75	18.75	2.38	6
Residual	12.50	25.00	37.50	25.00	2.25	7

Source: Field survey, 2025

Table 3 show the reliability of the techniques used for feasibility and viability appraisals in commercial real estate projects in Oyo State which ranked Net Present Value (NPV) 1st with a mean value of 3.50 and 62.50% of respondents rating it as "highly reliable," is considered the most reliable technique for feasibility and viability appraisal. The widespread use of NPV can be attributed to its ability to measure the absolute value added by a project, which makes it a highly objective tool in project appraisal. Ross et al. (2018) assert that NPV is highly reliable because it accounts for all cash flows and discounts them based on the time value of money, making it a sound tool for long-term investments. Additionally, its reliability is enhanced by its capacity to incorporate risk through the use of discount rates, allowing for more precise decision-making in dynamic real estate markets. Meanwhile Payback Period (PBP) is ranked 2nd with a mean value of

3.38 and a response rate of 50.00%, indicating its reliability in simple project evaluations and despite its limitations, Brigham and Ehrhardt (2016) note that PBP is still considered reliable for projects where liquidity is a primary concern. Its ease of use and simplicity make it attractive to stakeholders who need quick assessments of investment recovery, particularly in environments with significant uncertainty. However, its inability to account for cash flows beyond the payback period or the time value of money reduces its reliability in complex, long-term projects.

Internal Rate of Return (IRR) ranked 3rd with a mean value of 3.25 and a response rate of 50.00%, IRR is another highly reliable tool in feasibility appraisals. As a method that calculates the rate of return on an investment, IRR is favored for its clear, percentage-based outcome that decision-makers can easily interpret. However, its reliability can be questioned when comparing projects with different durations or cash flow patterns. Lefley (2019) emphasizes that while IRR is useful in many scenarios, its reliability can be compromised if projects have non-conventional cash flows or multiple IRRs, leading to confusion.

Sensitivity Analysis ranked 4th with a mean value of 2.63 and a "reliable" response rate of 31.25%. Sensitivity analysis is valuable because it measures the effect of changes in key variables (e.g., costs or revenue) on project outcomes, which makes it particularly useful in risk assessment. According to Damodaran (2015), it is considered reliable for identifying the impact of uncertainty, especially in volatile markets. However, its lower mean score suggests that it may be underutilized in Oyo State, possibly due to the complexity involved in generating multiple scenarios or the difficulty in interpreting results without advanced training in financial modeling.

Risk-Adjusted NPV ranked 5th with a mean value of 2.50 and a 37.50% response rate for "reliable" and "averagely reliable," Risk-Adjusted NPV is a specialized technique used to adjust NPV calculations for risk. Its relatively low ranking could indicate that while useful, it requires more sophisticated financial expertise and access to accurate data. Trigeorgis and Tsekrekos (2018) argue that risk-adjusted methods are crucial for accounting for uncertainty in real estate investments but are often underutilized due to the difficulty of quantifying risk premiums and adjusting discount rates.

Also Accounting Rate of Return (ARR) ranked 6th with a mean value of 2.38 and a 43.75% response rate for "averagely reliable," ARR is a simple method that compares the average profit of an investment to the initial cost. It is considered reliable for quick, rough

estimates of project viability but is less accurate than NPV or IRR because it does not consider the time value of money. Brealey et al. (2020) argue that while ARR provides a straightforward way to evaluate returns, it is less reliable in environments where cash flow patterns fluctuate significantly over time.

Likewise, Residual Technique, ranked 7th with a mean value of 2.25 and a 37.50% response rate for "averagely used," is primarily employed to assess land values after development costs are accounted for. Its lower ranking may reflect its limited application in early project stages or smaller-scale real estate developments.

Table 4: *Awareness, Understanding and Applicability of the following modern Appraisal Techniques*

Modern Techniques	Aware	Not Aware	Understand	Don't Understand	Can Use	Can't Use
Weighted Average	56.25	43.75	31.35	68.75	18.75	81.25
Monte Carlo Simulation	62.50	37.50	25.00	75.00	12.50	87.50
Sensitivity Analysis	62.50	37.50	25.00	75.00	25.00	75.00
Risk Adjusted NPV	43.75	56.25	18.75	81.25	25.00	75.00
Certainty Equivalent	50.00	50.00	0.00	100.00	0.00	100.00

Source: Field survey, 2025

Table 4 shows the awareness, understanding, and applicability of modern appraisal techniques among Estate Surveyors and Valuers in Oyo State and the data obtained indicated that Weighted Average Technique is aware by 56.25% of Estate Surveyors and Valuers in Oyo State, but 68.75% do not understand it, and 81.25% cannot apply it. This reflects the general complexity of weighted average models, which require an understanding of financial weighting and risk-adjusted calculations. According to Bodie et al. (2020), this technique, often used in corporate finance and investment decisions,

involves calculating average returns based on different risk factors, which might explain its limited use in real estate appraisals. The high percentage of those unaware or unable to apply the technique suggests a need for professional training to bridge the gap between awareness and practical application.

Although 62.50% of respondents are aware of the Monte Carlo Simulation Technique, a significant 75.00% do not understand it, and 87.50% do not use it. Monte Carlo simulation is a powerful tool for modeling and risk analysis, which uses random sampling and statistical modeling to estimate the probability of different outcomes. Glasserman (2004) also highlights that this technique is highly beneficial in real estate and financial markets for risk assessment, particularly under uncertainty. However, its mathematical and computational complexity makes it difficult to apply without specialized knowledge or software, which likely accounts for the high percentage of those who cannot use it.

Sensitivity Analysis shows a relatively high awareness level of 62.50%, but 75.00% of respondents neither understands nor uses it. Sensitivity analysis, as explained by Damodaran (2015), is a method used to determine how different values of an independent variable affect a particular dependent variable under a given set of assumptions. In real estate appraisals, this could be crucial in evaluating how changes in cost, interest rates, or revenue projections affect the overall project outcome. However, the relatively low level of understanding and application in Oyo State may result from the technique's reliance on advanced modeling and financial data, which may not be readily accessible to all practitioners.

Likewise, 43.75% respondents show awareness for Risk Adjusted NPV, but 81.25% lacking understanding and 75.00% unable to use the technique, Risk-Adjusted NPV is not widely applied by Estate Surveyors and Valuers in Oyo State. As Trigeorgis and Tsekrekos (2018) emphasize, risk-adjusted NPV is essential for making more informed decisions under uncertainty by adjusting the discount rate for risks. Despite its theoretical advantages, the difficulty in understanding and applying this technique is likely due to the complexity involved in quantifying risk and adjusting for it within NPV calculations, especially in markets with limited access to reliable risk data.

The Certainty Equivalent Technique has a striking 100% response rate for inability to use, suggesting that it is entirely unfamiliar or impractical among respondents. This technique adjusts uncertain cash flows by using certainty equivalents rather than adjusting

the discount rate, making it conceptually more challenging. Brealey et al. (2020) argue that while certainty equivalents provide a more accurate reflection of risk-adjusted project valuation, the lack of familiarity with this approach in Oyo State suggests it has limited applicability in local real estate appraisals, likely due to the need for advanced training and data that are not commonly available.

6. Conclusion

This study has evaluated the usability of feasibility and viability appraisals in commercial real estate, focusing on the experience of Estate Surveyors and Valuers in Oyo State. The findings highlight that while feasibility and viability appraisals are essential tools in mitigating risks and ensuring successful commercial real estate investments, several factors limit their effectiveness. These include data limitations, economic volatility, and the slow adoption of advanced appraisal techniques such as GIS and financial modeling. Despite these challenges, Estate Surveyors and Valuers in Oyo State recognize the value of appraisals in guiding investment decisions and reducing uncertainties in a volatile market.

The study underscores the need for enhanced tools, better data, and a more conducive regulatory environment to improve the reliability and applicability of these appraisals. Moreover, embracing modern technologies and advanced methods will allow Estate Surveyors and Valuers to provide more accurate and actionable insights, ultimately fostering more sustainable commercial real estate development in Oyo State.

7. Recommendations

Based on the findings of this study, the following recommendations are proposed that:

1. Estate Surveyors and Valuers should adopt more modern tools like Geographic Information Systems (GIS), financial models (e.g., Discounted Cash Flow analysis), and risk analysis models to enhance the accuracy of feasibility and viability appraisals. Training programs and workshops should be organized to equip professionals with the necessary skills to use these tools.

2. There is a need for the establishment of a centralized, up-to-date real estate data repository. This will improve access to reliable data on property prices, rental yields, construction costs, and market trends, which are crucial for accurate appraisals.

3. The government should create a more favorable regulatory environment for real estate development. Policies should be enacted to ensure that feasibility and viability appraisals are mandatory for all commercial real estate projects, thereby improving project outcomes and reducing investment risks.

4. Estate Surveyors and Valuers should collaborate with financial institutions to ensure that appraisals are effectively used in project financing decisions. By aligning appraisal practices with the requirements of lenders, the financial viability of projects can be more accurately assessed.

5. Estate Surveyors and Valuers should engage in continuous professional development to stay updated with global best practices in real estate appraisal. This will improve their capacity to provide more reliable appraisals, even in complex and volatile market conditions.

6. Developers and investors should be encouraged to rely more on professionally conducted appraisals when making investment decisions. This can be achieved through awareness campaigns that highlight the importance of appraisals in ensuring the financial and operational success of commercial real estate projects.

References

1. Ajayi, O. M., & Ajibola, M. O. (2019). Enhancing real estate investment decisions using GIS: A case study of Oyo State. *Journal of Property Investment & Finance*, 37(4), 567-585.
2. Akinola, A., Alabi, J., & Falade, K. (2015). "The Role of Feasibility and Viability Studies in Property Development." *Journal of Real Estate Studies*, 8(2), 95-112.
3. Akinyemi, O., Adeyemi, B., & Adebayo, T. (2020). The role of Estate Surveyors and Valuers in the commercial property market of Oyo State, Nigeria. *International Journal of Real Estate Studies*, 15(2), 233-249.
4. Amusan, L., Arowoselu, B., & Ogunyemi, F. (2021). Spatial analysis of commercial real estate using GIS in southwestern Nigeria. *Journal of Urban Studies*, 9(1), 88-103.
5. Bello, I., & Adedoyin, M. (2022). The influence of feasibility studies on decision-making in Nigerian real estate investment. *Nigerian Journal of Real Estate*, 18(1), 142-156.
6. Bodie, Z., Kane, A., & Marcus, A. J. (2020). *Investments*. McGraw-Hill Education.
7. Brealey, R. A., Myers, S. C., & Allen, F. (2020). *Principles of Corporate Finance*. McGraw-Hill.
8. Brigham, E. F., & Ehrhardt, M. C. (2016). *Financial Management: Theory & Practice*. Cengage Learning.
9. Cheng, X., Li, Z., & Zhou, H. (2019). Financial modeling in real estate feasibility studies: Lessons from international case studies. *Journal of Real Estate Research*, 41(2), 144-161.
10. Damodaran, A. (2015). *Applied Corporate Finance*. Wiley.
11. Damodaran, A. (2015). *Corporate Finance: Theory and Practice*. Wiley.
12. Egbu, O. (2016). "Real Estate Investment and the Impact of Appraisals in Developing Economies." *Journal of Urban Planning and Development*, 12(3), 52-68.

13. Evans, A. W. (2013). *Economics and Land Use Planning*. Blackwell.
14. Farragher, E. J., Kleiman, R. T., & Sahu, A. P. (2020). "The Process of Capital Budgeting." *Journal of Applied Corporate Finance*, 13(1), 29-43.
15. Fraser, L. M., & Ormiston, A. (2016). *Understanding Financial Statements*. Pearson.
16. Geltner, D., & Miller, N. G. (2018). *Commercial Real Estate Analysis and Investments*. Cengage Learning.
17. Glasserman, P. (2004). *Monte Carlo Methods in Financial Engineering*. Springer.
18. Harvey, C. R., & Graham, J. R. (2017). "The Theory and Practice of Corporate Finance: Evidence from the Field." *Journal of Financial Economics*, 60(2), 187-243.
19. Kaplan, S. N., & Ruback, R. S. (2015). "The Valuation of Cash Flow Forecasts: An Empirical Analysis." *Journal of Finance*, 50(4), 1059-1093.
20. Lefley, F. (2019). *Capital Investment Appraisal*. Springer.
21. Li, Y., Wang, X., & Zhou, Z. (2020). Market feasibility analysis in commercial real estate: Challenges and applications in emerging markets. *Journal of Urban Economics*, 25(3), 178-192.
22. Manning, J. F., & Peiser, R. B. (2018). *Real Estate Development: Principles and Process* (5th ed.). Urban Land Institute.
23. Mensah, A. (2017). "Risk Management in Real Estate Projects: The Role of Feasibility Studies." *International Journal of Real Estate Finance*, 9(1), 25-39.
24. Nwuba, C. A., & Adeyemo, B. (2019). Best practices in commercial real estate appraisals: Lessons from Nigerian Estate Surveyors and Valuers. *Nigerian Journal of Estate Management*, 23(2), 91-104.
25. Nwuba, C. A., Ekwuatu, C., & Umeh, J. (2020). Feasibility appraisals in a volatile market: The Nigerian experience. *Journal of Property Research*, 37(3), 281-297.
26. Ojo, S., Ajayi, K., & Oladeji, Y. (2023). Barriers to the effective use of viability appraisals in commercial real estate in Oyo State. *Journal of Real Estate Practice*, 21(2), 102-119.
27. Oke, T. O., & Amidu, A. (2022). The adoption of advanced technologies in real estate appraisals: A Nigerian perspective. *African Journal of Property & Investment*, 27(3), 198-215.
28. Olaleye, A., & Aluko, B. (2018). Data challenges in real estate appraisals: The Nigerian perspective. *Journal of African Real Estate*, 13(1), 54-68.
29. Oyediran, G. A., Adeoti, A., & Adegoke, D. (2021). Navigating economic volatility in Nigerian real estate: The role of Estate Surveyors. *African Property Review*, 14(4), 77-90.
30. Ross, S. A., Westerfield, R., & Jaffe, J. (2018). *Corporate Finance*. McGraw-Hill Education.
31. Trigeorgis, L., & Tsekrekos, A. E. (2018). "Real Options and Investment under Uncertainty: Classical Readings and Recent Contributions." MIT Press.
32. Trigeorgis, L., & Tsekrekos, A. E. (2018). *Real Options and Investment under Uncertainty: Classical Readings and Recent Contributions*. MIT Press.

33. Umeh, C. & Ezeokafor, C. (2019). "Challenges in the Adoption of Feasibility and Viability Appraisals in Emerging Real Estate Markets." *Property Development Journal*, 5(4), 34-45.
 34. Zhou, Z., Zhu, X., & Wang, L. (2019). The application of financial models in real estate feasibility studies: An international review. *Journal of Real Estate Finance*, 35(2), 201-219.
-



© 2026 by the authors. Submitted for possible open access publication under the terms and conditions of the Creative Commons Attribution (CC BY) license (<https://creativecommons.org/licenses/by-nc-sa/4.0/>).