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Investigating the application of Data and Data Analytics in Real Estate Investment Decisions Among Lagos Valuers

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Abstract

Incorporating data analytics into real estate investment decisions can provide investors with vital tools and insights to help them manage the intricacies of the real estate market, maximise profits and align their investments with sustainability and ethical considerations. This study investigates how Lagos state valuers leverage data and data analysis approaches to make investment decisions for their clients. The first objective of the research is to identify the appraisal process used by Valuers in their feasibility and viability assessment. The second objective is to determine the type of data collected by Valuers for the preparation of feasibility and viability reports. The third is to identify the significant challenges faced by Valuers in obtaining the required data and how they overcome these challenges in the hope of giving the client the best possible service. Fourth is to examine the role of data analytics in real estate investment decisions, which includes data analysis stages, prospects, and suggested ways Vauers can implement a data-driven culture. Findings from this Study have shown that Real Estate professionals rely on data regarding investment decisions. However, many valuers have yet to explore data analytics or incorporate a data-driven culture in their organisations.

Keywords: Data; Data Analytics; Investment Decision; Feasibility and Viability appraisals

Introduction

As the world moves toward technology, machine learning, artificial intelligence, and data management, the need for Real Estate professionals to adopt technological tools to make data-driven decisions about sale, purchase, rental, and management of properties or Assets demands immediate attention. The process involves Gathering all relevant information from numerous sources and processing it to provide actionable insights. Brokers, investors, developers, owners, and other real estate professionals should rely on real estate data and its analysis to predict the profitability or loss of investment, decide the optimum time to buy or sell, find suitable renters, negotiate successfully, create smart contracts and safer sales, decide on better use of leased space and allocate marketing efforts. Data Analytic literacy is becoming more prevalent in the Real Estate Sector as data and content become more widely available, especially in the Western world.

The world's real estate value reached $326.5 trillion in 2020, a 5% increase from 2019 and a high record. Growth was driven by residential, which is by far the largest real estate sector, Savills Research (2021). Real Estate is the world's most significant store of wealth, which is more valuable

than all global equities and debt securities combined and almost four times that of global GDP. Many organisations use data to improve various aspects of their operations. Real estate investors need accurate, timely, and reliable information to make sound decisions. Without it, they will either make an incorrect decision that will harm the property investment performance or, even worse, make no decision. (Kadwai, 2022)

Technology adoption in the real estate industry has recently accelerated. With technology, the industry also leverages data as one of its most valuable commodities. Whether understanding market trends or increasing occupancy rates, data helps Real Estate Investors make more informed decisions and maximize their portfolios. Ali Kidwai (2022) When complex data is presented, it can strongly impact your investments. For instance, it can show which markets are ripe for investing and which to avoid. You can analyze past and current trends to assess the income potential. In a recent survey by (Grinis, M, 2022) Ernst & Young, 92% of real estate owners wanted technology that addressed data analytics. However, only 35% of them have adopted suitable tools.

Data Analytics Phenomenon

According to IFAC (2018), Data analytics is a broad term that encompasses many diverse techniques and processes for drawing insights from historical data over time. In other words, It is the practice of examining pre-existing datasets to generate new information and insights that are meaningful, actionable, and can subsequently be utilized to inform and drive intelligent business decisions. With all the disruptive innovations happening in the world and in the Real Estate sector, the field remains untapped, lacking an enormous amount of unused or scarce data. Data is crucial to developing the real Estate industry towards technology and more effective transactions. Nowadays, the software to collect and process all the data that could cause this transformation already exists, such as Building management system (BMS), Buildium, deal check, reannex, zilculator, realdata space use, and prices per zone.

This paper will expose data and big data analytics to understand its current uses, potential, and limitations. Previously, real estate data analytics concentrated on traditional measures such as a property's occupancy rate, rental payments paid by present tenants, and local market trends. However, in recent years, there has been a rising appreciation for non-traditional characteristics influencing market value and informing decision-making, such as the location of bus stop stations, online ratings of local companies, and even the frequency of visitor assessment into commercial buildings. Armed with real estate data analytic software driven by proprietary data, investors are systematically understanding and evaluating with more incredible speed, scale, and precision using deal management software (Carrigan, 2023)

Real Estate Investment Phenomenon

The investment landscape is vast. Bonds, mutual funds, cash, stocks, and Real Estate are all excellent investment options. However, while diversifying investment portfolios is essential, the guiding principle for long-term yield and avoiding significant loss continues to set the pace for

major investment decisions. With a well-chosen asset such as real Estate, you are guaranteed long-term investment yields and risk mitigation. Supply and demand, the economy, demographics, interest rates, government policies, and unforeseen events influence real estate trends, including prices and rental rates.

A maximum level of satisfaction from an investment is what every investor hopes to achieve. A smart investor selects from various potential investments to maximize wealth and returns while reducing risks. The call for feasibility analysis has been driven by the desire to maximize one's investment. The appraisers can use a variety of methodologies to determine if a project is beneficial or not, and they choose the one that best satisfies the investor's goals. Therefore, The kind of data gathered, evaluated, and interpreted for this report becomes necessary since the investor relies heavily on the valuer's professional recommendations.

Valuers conduct feasibility and viability studies for proposed developments ranging from individual residential buildings to massive industrial estates. Generally, a feasibility and viability appraisal include cash flow forecasting, cost-benefit analysis, and profit margin comparisons and is mostly done to determine the project's practicability and profitability. It also allows the developer or client to choose between alternative developments. It determines the type of development that could be done on a specific piece of land and the intensity of use. Reports are typically generated as a working blueprint for further client decisions and critical cost-benefit decisions before project embarking. As a result, accurate, timely, and reliable information is vital for any real estate investor to make sound decisions. If they are not prioritized, they are likely to fail. With data analytics, real estate management companies can manage building operations efficiently and boost property value. Who knows what they might find if they have the correct data-driven insight?

Data drive strategic decisions globally as this minimises risks and enthrones market confidence on the part of investors. Demand for real Estate is a derived demand. Property development and redevelopment are market responses to the dynamics of socio-economic needs of the community or society, which may include the need for space, extension of roads and utilities, building up of vacant sites, modification and change of use, etc. (Otegbulu, 2022) This decision must be made with market data for reliability. However, this differs from the situation in most cases in Nigeria, including Lagos, the study area. Most developers depend on experience, clairvoyance, and guesswork, hoping everything will come out fine.

Most developments still need to be sold or occupied for a prolonged period. Developers need information on population, income, employment, change in taste and preference, technology, substitute property, etc. Data on this must be collected, collated, and analyzed for application for investment decisions. Most developers operate on the wrong assumption that strong and booming markets guarantee a good development opportunity and that a weak market implies that a well-conceived development cannot be successfully implemented. The critical question to ask before real estate investment decisions is if a market needs to be satisfied or a market segment needs to be served. Data Analytics is critical to a successful real estate investment decision and a panacea to development failure. Market research does not support most development projects, which is the foundation of any market analysis. Development financiers and bankers are complaining about

non-data-driven pre-investment reports. Most of the reports also need more reliable and current data and analysis, hence the need for this study.

This is a study on data analytics, generally described as providing investors with facts and figures about intended investment decisions. This will cover the appraisal process adopted by valuers in feasibility and viability studies, property type commonly approved by development surveyors, nature of data collected for analysis, examines the role of data analytics in real estate investment decisions, which includes data analysis stages, prospects and challenges encountered by appraisers in carrying out investment decision analysis and suggested ways Vauers can implement a data-driven culture.

Finally, the study will undertake a content analysis of different feasibility and viability reports to determine compliance with standard data analysis. The study will be limited to development Decisions on feasibility and viability reports because this is the source of development failure.

Literature Review

We shall be reviewing related literature on the subject of discussion, investigating the application of Data analytics for real estate investment covering appraisal process, Challenges of investment appraisal, Data requirements for investment decisions, the role of data analytics in real estate investment decisions, which includes data analysis stages, prospects, and suggested ways Vauers can implement a data-driven culture amongst other.

Appraisal Process:

The appraisal process is quite distinct from the development process. Appraisal processes are steps the appraiser takes to guide the investor or developer in making an informed investment decision. Development is both an art and a science, and all rational developers follow a logical sequence from the period they first conceive the idea of the project to the time the physical construction concludes (Otegbulu, 2022). On the other hand, the appraisal process is accomplished following specific steps, the number of which depends on the nature of the appraisal assignment and the data available to complete it.

This process includes the identification of the problem, the scope of work, and the determination of data collection covering market data, specific characteristics of the site and improvements, if any, comparable property data on sales, rentals, vacancy, competition, income and expenses, yields, etc. This is followed by a market analysis of demand and supply studies, marketability studies and highest and best use analysis (Otegbulu, 2022; Fanning, 2005; Delosle, 2010).

Farragher and Savage (2008) stated that to make sound real estate investment decisions, applying experience, good judgment and creativity in a sophisticated decision-making process is required. Their study shows that most investors focus on decision-making processes that include setting strategy, establishing risk/return goals, searching for investment opportunities, forecasting expected returns, evaluating forecast returns, assessing risk, adjusting for risk, decision-making,

implementing accepted proposals, and auditing operating performance. Equity investors mainly adopt this process in real Estate. However, the process is also applicable to real estate investment decisions.

Data Requirement

As indicated earlier in this paper, accurate, timely, and reliable information is crucial for effective investment decision-making. The investor will require information concerning the direction of socio-economic variables driving the property market. They need to know what rent, yield, and price will be at an estimated time frame (Otegbulu, 2022). The level of employment also influences demand for real Estate. Firms' prosperity, in turn, determines the level of employment, which sets the general level of household income. Increasing household income will boost their capacity to spend on housing and rentals. (Memahan 2015, Jonnason and Drick 2018) Different projects will require different data inputs. Despite these, the significant drivers of demand for development remain income, the country's economic situation, vacancy level, competition, income level risk factors, etc. Real estate decisions can only be sustainable in the presence of reliable data. Li (2021) says establishing a high-quality and reliable information management system significantly enhances efficiency in real estate investment decisions and marketing. The author further argued that data has penetrated various industries and businesses and has gradually become a vital product factor. The analysis and application of massive data by real estate companies can effectively predict consumer demand and productivity growth and provide a reference for investment decision-making and strategy formulation.

Considering the enormous amount of data required for real Estate, particularly commercial development, Nair (2011) highlights potential investors need to make more informed and better decisions. For example, potential investors need to penetrate deep into research on the location and demand factors of the proposed investment, mainly the attractiveness of the location of the proposed development, the employment market, the regional or local economy, and the population growth. The author further explained the need to evaluate property-specific attributes like current and future cash flows, vacancy rate, maintenance and repairs, taxes, lease terms, etc. Geitner and Miller (2007) emphasised the need to take inventory of existing supply, identify sources of space usage demand, forecast demand and new supply sources and their decision implications.

Information is critical to real estate investment decisions, but the collected data must be screened and analysed before application. Investors and appraisers must understand and process data characteristics before using them. (Li 2021) Accurate, timely, and reliable information is crucial for effective decision-making relating to real estate investment. In the absence of this, you end up making an inappropriate decision that could damage property investment performance. With technology, the real estate industry also leverages data as one of its largest commodities. (Polestar 2022, Carngan 2023)

Data Analytics and Real Estate Investment Decisions

Data analytics is increasingly becoming an integral part of the real estate investment decision process, enabling investors to make a more informed choice, mitigate risks, and optimise returns in real estate market analysis by tracking market trends- property prices, property types, market conditions, rental rate, occupying rate, population growth, job opportunities, infrastructure development, and other market indicators, etc. Real Estate data are highly heterogeneous. The Modeling and controlling of this complex data related to real estate decisions require much data to be analysed. (Li and Tang, 2009) Data analysis encourages precision in data used for investment decisions and employing scientific methods, which can produce a comprehensive analytic framework for solving real estate investment decision-making challenges (Tang & Li, 2009).

The application of data analytics has emerged as a revolutionary force in the ever-changing landscape of real estate markets and investment strategies. Institutional and individual investors increasingly use data-driven insights to guide decision-making processes, maximise portfolio performance, and limit risks. This paradigm shift represents a recognition of the power of data analytics in improving investment outcomes. In this context, data analytics emerges as a strong force, promising to alter how real estate investment decisions are made and executed.

Data analytics, broadly defined as the systematic analysis of data to extract meaningful insights, has found many applications within data analysis to solve almost all problems in the real estate sector: attracting clients, improving the quality of services, etc. In addition, increasing the reporting speed and quality increases the depth of data analysis and coverage (Bean Randy, 2016). The rapid development of IT technologies used for analysing big data in the real estate sector (one of the leaders in this segment) has different directions. The demand for data and data analytics technologies and services in the global market is stimulated by an increase in data volumes, the emergence of new technologies, and cultural progress toward decision-making in various areas Biktimirov (2016).

There is a need for real estate decision-makers to prepare for cultural and business change. However, some large firms have invested in optimising existing infrastructure to match the speed and cost benefits of Data and its analytics. New tools and approaches are displacing whole data ecosystems. A new generation of data professionals is now emerging. They have grown up using statistical techniques and languages like Hadoop and R, and as they enter the workplace in more significant numbers, traditional approaches to data management and analytics will give way to these new techniques (Bean Randy 2016).

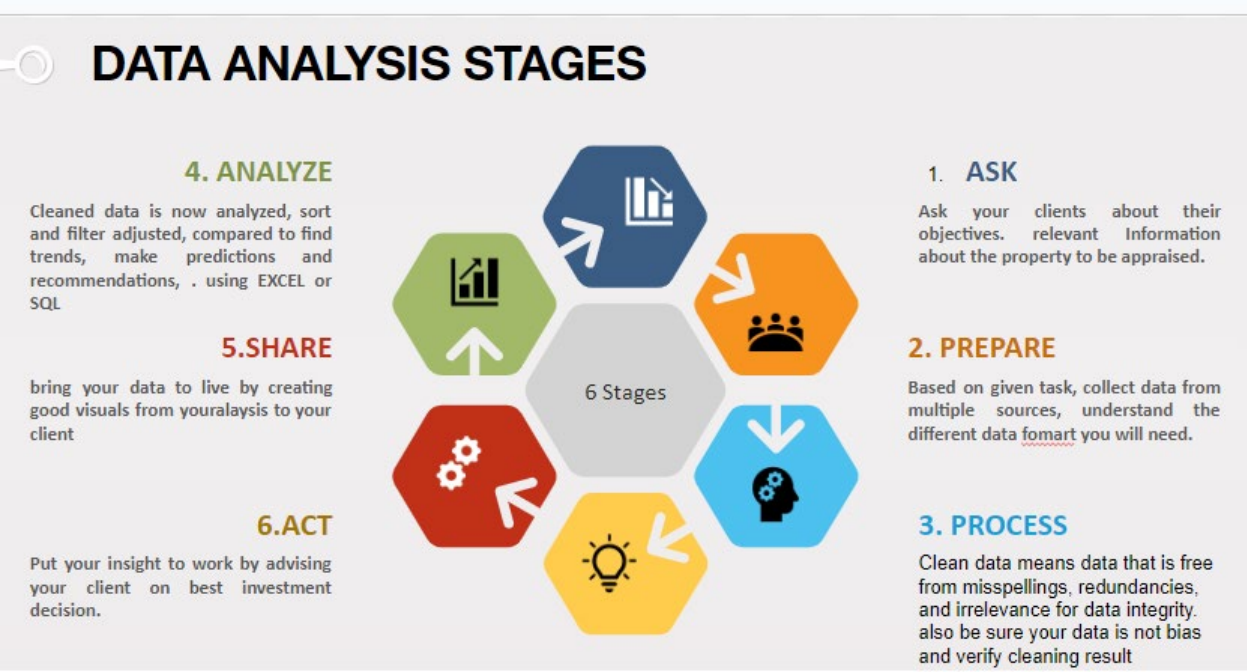
Companies need to improve in their effort to be data-driven.The percentage of firms identifying themselves as being data-driven has declined in the past three years — from 37.1% in 2017 to 32.4% in 2018 to 31.0% this year. Despite increasing investment in data and AI initiatives, these sobering results and declines have come. Whatever the reasons for the failure to achieve transformational results from data initiatives, the amount of data continues to rise in business and society. Analytical decisions and actions are generally based on intuition and experience. In short, the need for data-driven organisations and cultures is not going away. (Bean 2019)

Nowadays, we live in the technology age where a massive amount of digital data is generated exponentially at an unprecedented speed. This evolution of data is accompanied by an advance in technologies that enable organizations to collect, store, manage, and analyze such data to transform it into information and knowledge. This phenomenon is known as Big Data (Ylijoki, O 2016)

It is commonly said that Big Data has three defining attributes, also known as "3 V" s", those being volume (for the giant amount of data to be dealt with), variety (for the heterogeneity of formats such as texts, sensors, audio, video, graphs that it can warehouse and generate) and velocity (for the continuous and fast stream of data it processes) (Bilal et al., 2016). This section will explore how to deal with this data and generate value with its caption and storage.

Analysis has been in operation for a long time, but there are differences between conventional and big data analysis.

Big Data Analysis Framework for Real Estate Investment Analysis



Prospects Of Data Analytics Application in Real Investment Analysis

Data analytics in real estate investment analysis provides various benefits that can significantly improve decision-making and investment strategies. Improved Decision-Making: Data analytics provides real estate investors with data-driven insights, enabling them to make more informed, detailed, objective, and precise investment decisions. Enhanced Risk Assessment: By analysing historical data and identifying potential risks, data analytics helps investors assess and mitigate risks, leading to more resilient investment portfolios Market Insights: Data analytics can uncover valuable market insights, including trends, demand-supply dynamics, and emerging opportunities,

which inform investment strategiesPredictive Modeling: Data analytics allows for predictive modelling, which can forecast property performance, vacancy rates, and rental income, aiding in investment planning and asset management.

Portfolio Optimisation: Investors can use data analytics to optimise their real estate portfolios by balancing risk and return, leading to more diversified and profitable investments.

Sustainability Analysis: Data analytics helps assess the sustainability and environmental impact of real estate investments, aligning portfolios with ESG (Environmental et al.) goals.

Operational Efficiency: Property and asset management can be optimised through data analytics, reducing operational costs and maximising revenue.

Cost Reduction: Data analytics can identify cost-saving opportunities in property maintenance, energy consumption, and other operational aspects.

Backtesting Strategies: Investors can use historical data to backtest various investment strategies, refining their approaches for better outcomes.

Continuous Learning: Data analytics encourages a culture of continuous learning as investors adapt and improve their strategies based on data-driven insights and performance feedback.

Customisation: Investors can customise their strategies and decisions based on specific goals and risk tolerances, utilising data analytics to tailor investments to their preferences.

Transparency: promotes transparency and Data integrity in real estate investments by providing precise data sources and methodologies, which can enhance trust among investors.

Investments diversification: data being used to identify markets to be explored related to the activities already developed and assets already acquired, diversifying the portfolio and the business.

How Can Estate Surveyors Implement a Data-Driven Culture?

We cannot talk about data analytics without data. There should be an approach to how we can grow our data bank and generally imbibe the data-driven culture in our organisations to more informed decision-making, improve efficiency, and enhance client services. The developed countries are growing their property data centres and making information accessible to all, which has led to the establishment of prop-techs and shared economy platforms like Airbnb, WeWork, Opendoor, Compass, and Homelight and real estate Fintech platforms that facilitate the trading of real estate ownership (Crowdfunding, equity raising platforms, remote investors platforms, etc.).

To implement a data-driven culture, Begin with leadership commitment. Top management should understand the value of data-driven decision-making and actively support the cultural shift, Develop a clear data strategy that outlines the objectives, Identify relevant data sources, both internal (e.g., property records, transaction data) and external (e.g., market trends, demographic data), and integrate them into a centralised data repository, Establish data governance policies and

procedures to ensure data quality, consistency, security, and compliance with regulations, Implement data quality checks and validation processes to ensure the accuracy and reliability of data. Provide training and resources to equip estate surveyors in your organisation with the necessary data analytics skills, including data visualisation and statistical analysis. Invest in data visualisation tools that allow estate surveyors to create informative and actionable visual reports and dashboards, assemble a team of data analysts or data scientists to analyse data, uncover insights, support decision-making, Client Educate clients on the benefits of data-driven insights and involve them in the process, sharing data-backed recommendations and insights. Regular Data Reviews and Update: Schedule regular data review meetings where estate surveyors discuss findings, insights, and trends to inform strategies; establish feedback loops where estate surveyors can provide input on data tools, processes, and analytics to improve the data-driven culture continuously; ensure strict data privacy and security measures are in place to protect sensitive information, Foster collaboration between estate surveyors, data analysts, and other stakeholders to ensure that data insights are integrated into decision-making processes. Finally, continuously evaluate and refine data-driven processes and strategies based on feedback and changing market conditions.

Methods

This chapter is focused on data presentation, evaluation and analysis of respondents' opinions according to the stated objectives and research questions. For this purpose, the data analysis and presentation are divided into three parts. The first part is the analysis of respondents' demographic information. The second section presents the results from the statistical analysis of primary research questions.

One hundred and twenty (120) copies of the questionnaire were administered to study participants; one hundred and three (103) compositions were adequately filled and returned on schedule, giving an 86% response rate. Data analysis is, therefore, based on the number of produced copies of the questionnaire.

Findings

This section of the study and results concerns responses to the research questions in the survey questionnaire. It begins with the analyses of respondents' socio-demographic data, after which the answers to the main items of the research questions are analysed and interpreted.

Table 4.1 Years of Practicing as an Estate Surveyor and Valuer

	Frequency	Percentage
0-5yrs	13	12.6
6-15yrs	43	41.7
16-20yrs	13	12.6
Above 20yrs	34	33
Total	103	100

Source: Field Survey, 2023

Table 4.2: Firms Carrying out Feasibility and Viability Appraisal

	Frequency	Percentage
Yes	102	99
No	1	1
Total	103	100

Source: Field Survey, 2023

Table 4.3: Familiarity with the Concept of Data Analytics in the Context of Real Estate Investment Analysis

	Frequency	Percentage
Very familiar	37	35.9
Somewhat familiar	7	6.8
Not familiar at all	59	57.3
Total	103	100

Source: Field Survey, 2023

Table 4.3 above shows the familiarity with data analytics in the context of real estate investment analysis. 35.9% of the respondents are very familiar with the concept of data analytics in the context of real estate investment analysis, 6.8% are somewhat familiar, and 57.3% are not familiar at all with the concept of data analytics in the context of real estate investment analysis. Most

respondents need to become more familiar with data analytics in the context of real estate investment analysis.

Table 4.4: Reliance on data in real estate investment analysis

	Frequency	Percentage
Yes	92	89.3
No	11	10.7
Total	103	100

Source: Field Survey, 2023

Table 4.4 above shows the frequency distribution of respondents on the usage of data or relied on real estate investment analysis. 89.3% of the respondents relied on real estate investment analysis data, while 10.7% did not rely on data analytics tools/systems in real estate investment analysis. This shows respondents relied on data analytics tools/systems in real estate investment analysis.

Table 4.5: Refine and Adjust Data Collection from either Primary or Secondary Sources before Advising Client Investment Decision

	Frequency	Percentage
Yes	86	83.5
No	17	16.5
Total	103	100

Source: Field Survey, 2023

Table 4.6: Type of Property often Undertake in Feasibility and Viability Appraisal

	Frequency	Percentage
Residential	54	52.4
Shopping Plaza	23	22.3
Office Building	12	11.7
Hotel	10	9.7

Petrol Stations	2	1.9
Industrial Property	2	1.9
Total	103	100

Table 4.7: Sources of data used for pre-investment Study

	Frequency	Percentage
Newspaper	3	2.9
Questionnaire	14	13.6
Online	12	11.7
Information from Estate firm and property company on current property transaction	60	58.3
Stored information from files and archives of property company and estate surveying	6	5.8
Published statistical data	8	7.8
Total	103	100

Source: Field Survey, 2023

Table 4.8: Agreement to the Usage of Data Analytic Tools to Influence Real Estate Investment Strategy

	Frequency	Percentage
Yes. Significantly	73	70.9
Yes, Moderately	22	21.4
I'm not sure	8	7.8
Total	103	100

Source: Field Survey, 2023

Table 4.9 Ranking of Challenges encountered by Estate Surveyor in Carrying out Feasibility and Viability Studies

	Mean	Rank
Lack of a central data system in real estate	4.33	1
Lack of empirical data	4.13	2
Reluctance in disclosing information	4.11	3
Providing wrong information	4.02	4
Non-disclosure of information by stakeholders in the building industry	4.00	5
Poor/non keeping of transaction records by estate surveying firms	3.94	6
Analyzing and refining data	3.93	7
Mismatch of information requested and supplied	3.79	8
Wrong application of data	3.66	9
Inadequate arrangement or preparation before commencement of the study	3.42	10
Poor knowledge of IT by most Estate Surveyors	3.32	11

Source: Field Survey, 2023

Table 4.10: Prospect of Data Analytics in Real Estate Investment Analysis in the next 5-10yrs

	Frequency	Percentage
Yes	96	93.2
No	7	6.8
Total	103	100

Source: Field Survey, 2023

Table 4.12: Willingness to adopt and Explore Data Analytic tools in Analyzing Large Data for Investment Decision

	Frequency	Percentage
Yes	33	32
No Response	70	68
Total	103	100

Source: Field Survey, 2023

Table 4.12 shows that all respondents are willing to adopt and explore data analytics in analysing extensive data for investment decision.

Table 4.13 Software used in the office to get work done quickly.

Online Property Marketing Apps.
Property management software, Virtual reality (VR) tools
Microsoft Excel, Microsoft Word, google Maps, Google Earth, AutoCAD
Artificial intelligence, Big data etc.
Moxiworks

The above software is primarily used in the office to get work done quickly.

Table 4.14 Challenges for Data and Data analytics becoming fully embedded into Feasibility and Viability Appraisal

Lack of understanding of the benefits it can bring	73	70.9
Data storage and sustainability	8	7.8
Cost of implementation (buying software and training staff)	22	21.4
Total	103	100

Source: Field Survey, 2023

Summary of Findings

While most Valuers rely on data in investment appraisals, most Estate Surveyors and Valuers need to familiarise themselves with data analytics in investment appraisal.

Information from Estate firms and companies on current property transactions remains the most used secondary data source for pre-investment Study.

Most surveyors are willing to adopt and explore data analytic tools in analysing extensive data for investment decisions.

Poor knowledge of IT by most Estate Surveyors has been ranked as one of the Challenges encountered by Estate Surveyors in Carrying out Feasibility and Viability Studies.

Lack of understanding of the benefits it can bring is ranked as the reason why data analytics is yet to be fully embedded into the feasibility and viability appraisal process.

All respondents agreed to the positive of data Analytics in Real Estate investment analysis in the next 5-10 years.

Recommendation

Embrace a Data-Driven Decision Culture: Estate Surveyors should Foster a culture that values data-driven decision-making within their organisation. Encourage all team members to actively seek out data, analyse it, and incorporate data insights into their daily tasks, including property appraisals and investment, While investing in technological tools.

Invest in training IT programs for staff that enable Estate Surveyors to leverage advanced analytics techniques such as machine learning, predictive modelling, and spatial analysis. These techniques can provide deeper insights into property performance and market trends.

Collaborate with experts from other fields, such as data science, economics, and urban planning. Cross-disciplinary collaborations provide fresh perspectives and access to specialised knowledge that can enhance data analytics efforts.

Estate Surveyors and Valuers should build and update a property database- Gather relevant data from various sources, including property listings, historical transaction data, market trends, and economic indicators, and be willing to release or share data with other professionals.

Continuously monitor the real estate market for good investment analysis by conducting market research. This involves analysing data on supply and demand, demographics, zoning regulations, and infrastructure development. Market research can help identify emerging trends and investment opportunities.

Conclusion

Implementing a data-driven culture requires commitment, resources, and a systematic approach. Over time, it can significantly enhance the capabilities of real estate surveyors, leading to more effective investment decision-making, better client services, and a competitive advantage in the real estate industry. Incorporating data analytics into real estate investment analysis can empower investors with valuable tools and insights to navigate the complexities of the real estate market, optimise returns, and align their investments with sustainability and ethical considerations. While we are yet to explore generative AI, Machine learning, robotics and automation, We still believe that data is a driving force behind other disruptive innovations.

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