CRITICAL REVIEW ON INSTITUTIONAL REAL ESTATE INVESTMENT DECISION-MAKING MODELS

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ABSTRACT

This critical review delves into the underexplored realm of institutional real estate investment decision-making, a domain that holds paramount significance in the financial landscape. Despite the extensive scrutiny of individual real estate investors' decision-making processes, there exists a noticeable lack of research on the pivotal role played by institutional investors. As the primary stakeholders armed with substantial financial resources, institutional investors, encompassing entities such as investment funds, insurance companies, and pension funds, wield unparalleled influence in the market. This paper aims to unravel the complex decision-making models employed by institutional investors, focusing on the period from 2000 to 2024. Employing the PRISMA model, the review meticulously incorporates 21 pertinent articles, and a comprehensive thematic analysis, facilitated by ATLAS.ti version 23.2.1, reveals three prominent decision-making models – the Normative Model, the Descriptive Model, and the Prescriptive Model. In dissecting the factors that shape institutional real estate investment, the study identifies four key influencers: political, economic, legal, and real estate market fundamentals. The intricate interplay of these factors forms the crux of decision-making strategies adopted by institutional investors, as they diligently safeguard the interests of their trustees. Moreover, a noteworthy revelation surfaces regarding the geographical bias in existing research, with a scarcity of studies in developing countries, notably in Malaysia. This observation not only underscores the need for more comprehensive exploration in these regions but also presents a compelling avenue for future research endeavors. This critical review not only contributes to the ongoing discourse but also paves the way for a more nuanced understanding of the dynamic landscape of institutional real estate investment decision-making.

Keywords: Real Estate Investment, Decision-Making, Institutional Investors, Thematic Review

1.   INTRODUCTION

Investment portfolios typically comprise real estate as one of their asset classes. Baum, Crosby, and Devaney (2021) assert that real estate is a sought-after investment among institutional investors due to its favourable risk-adjusted return, diversification advantage, and capacity to hedge against inflation. It is anticipated that the investment institutional investors in real estate will increase to US$45.3 trillion (RM194.19 trillion) in 2020 and US$69 trillion by 2030. This growth is due to the real estate investment community with a wider array of prospects (PricewaterhouseCoopers, 2020). Real estate has shown to be a major class of asset for institutional investors which includes sovereign wealth funds (SWFs), mutual fund companies, pension funds, insurance companies and other forms of institutional savings that principally work for their customers as agents.

The decision-making of institutional investors holds paramount importance for stakeholders as it directly impacts the financial well-being of the stakeholders, the economy environment, and the ethical and responsible investment choices. Therefore, the objective of this paper is to investigate the decision-making models and identify factors influencing real estate investment by institutional investors that have been highlighted in the literature from the year 2000 to 2024.

2.   METHODOLOGY

The author conducted a systematic literature review to analyse articles on the decision-making model in real estate investment for institutional investors. Systematic literature review (SLR) is considered the most comprehensive and scientific form of review compared to other types (Paul et al., 2021). It aims to investigate a specific research subject related to the current state of a particular academic discipline (Kraus et al., 2020). Another significant aspect of SLR is that it provides solutions to questions that may skew the findings if only one study is considered. The "Preferred Reporting Items for Systematic Reviews and Meta-Analyses" (PRISMA) criteria were used in the systematic review procedures, as illustrated in Figure 1. The keywords were chosen after carefully examining previous articles and were searched on databases on January 2, 2024, as shown in Table 1.

Table 1: Search strings from Scopus and Emerald Insight

SCOPUS	"real estate" OR "property" AND "investment" AND "decision making" AND "institutional investor" OR "fund manager"	55 results
EMERALD INSIGHT	real estate investment and "decision making" and "institutional investor" or "fund manager"	87 results

(Author, 2024)

Initially, a total of 142 papers were found that are relevant to the keywords searched in the given databases. shown in Table 1. The search parameters provided to narrow down the literature search in the specified field: "real estate" OR "property" AND "investment" AND "decision making" AND "institutional investor" OR "fund manager" OR "real estate" or "property" AND "investment" AND "decision making" AND "institutional Investor".

In addition, we consider the subsequent standards to incorporate the article into our research:

- Articles having the search keywords in the article title, abstract and keywords.
- Document type: Article
- Articles published in English language only.
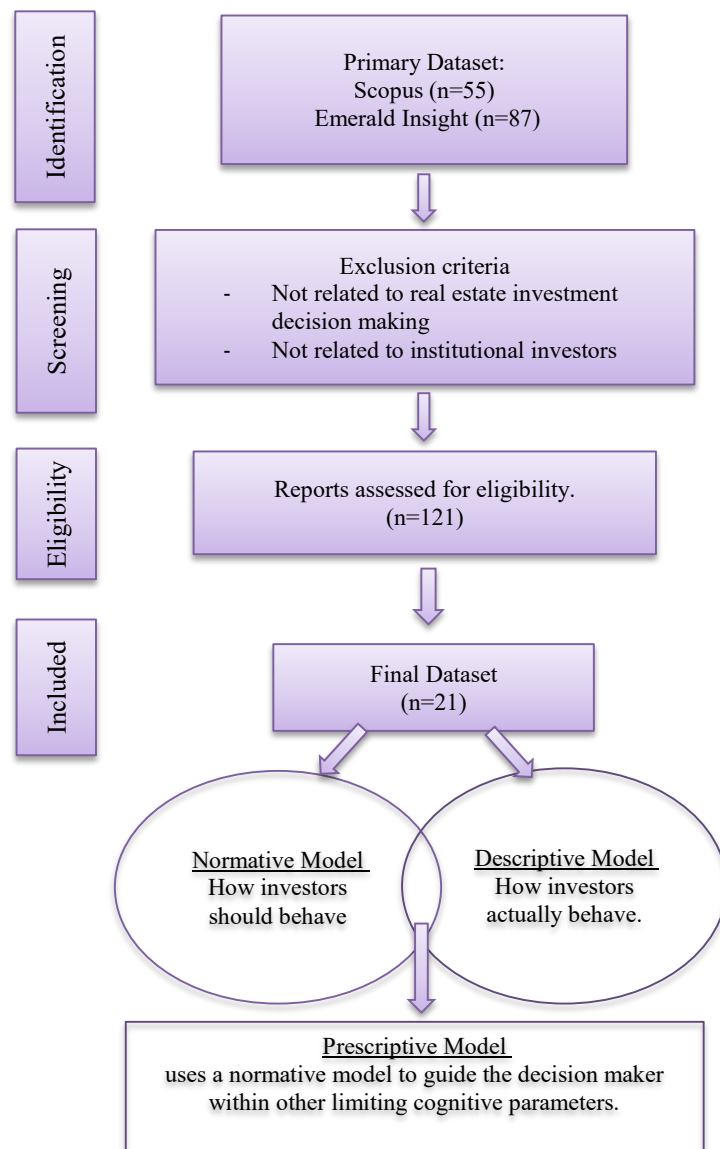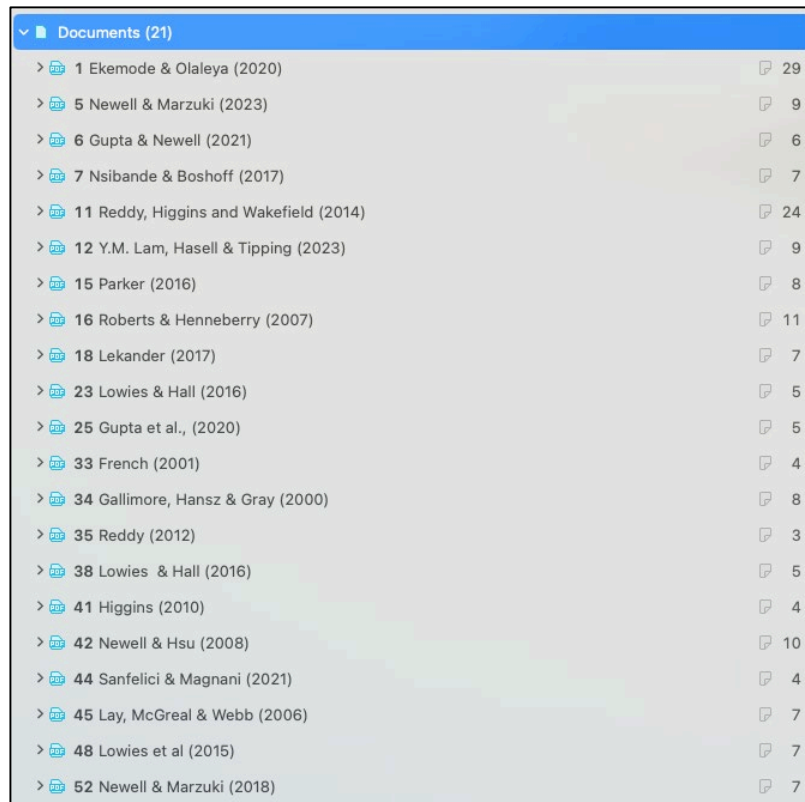- Year: 2000-2024

Figure 1: PRISMA framework (Author compilation).

The literature review utilized ATLAS.ti 23.2.1 to conduct the thematic analysis process. Thematic analysis is a systematic approach used to identify and analyze recurring themes or patterns in qualitative data (Clarke & Braun, 2018). Thus, the purpose of identifying the pattern and form category is to comprehend the institutional investors' decision-making models regarding real estate investment. Hence, recommended for future research in the area of real estate investment decision-making.

Figure 2: Articles imported in ATLAS.ti (Author, 2024).

Subsequently, the articles underwent a renaming process, where each article was labelled with the author(s)' names, publication year, and paper title. These articles were then uploaded onto ATLAS.ti 23 and organized according to their publication years. In total, 21 articles were compiled into the final documents within ATLAS.ti 23 (as shown in Figure 2). Utilizing ATLAS.ti 23, the thematic review process was facilitated by linking initial coding to themes, following Clarke and Braun's (2018) six-phase thematic analysis framework: (1) Familiarization with the data, (2) Coding, (3) Exploration of themes, (4) Reviewing themes, (5) Defining and naming themes, and (6) Writing up the report.

3.   RESULTS AND DISCUSSION

3.1   Trend on the Origin Country of Research

Figure 3 shows the trend in the origin country where the research was conducted on institutional real estate investment decision-making. Australia recorded the highest count of research on institutional real estate investment as shown in darker colour on the world map, whilst Nigeria, Sweden and Brazil are recorded as the lowest countries that conducted studies in this area of research. Among prominent researchers from Australia is Newell and Marzuki (2023) study on the impact of COVID-19 crisis in strategic real estate investment; Lam et al. (2023) explore the relative significant of behavioural heuristic biases in the investment decision of real estate investment trusts (REITs) when compared with the conventional normative decision factor; Parker (2016) that investigates the property investment decision making process of Australian unlisted property funds; Reddy (2015) examines the property asset allocation strategies of Australian institutional investors; Higgins (2015) researched investment styles of the Australian institutional investors; Newell and Wen Peng (2015) assess the significant of the emerging property sector funds among Australian institutional investors; Reddy et al. (2014) conducted a study on Australian institutional investors to identify their property asset allocation strategies and decision-making frameworks at strategic level. The highest study is also recorded in the UK, researchers such as Byrne et al. (2013); Jackson and Orr (2021), Ke and Sieracki (2019), Roberts and Henneberry (2007), French (2001), and Gallimore et al. (2000) conducted a study on the institutional investors' real estate investment decision-making.

Figure 3: Trend on the Origin Country of Research (Author compilation).

Whereas in the African continent, researchers such as Lowies and Hall (2020) conducted a study on the influence of government and emotions on the investment decisions of South African property fund managers; Nsibande and Boshoff (2017) investigated the investment decision-making practice of South African institutional investors. Umeh and Okonu (2018) explore how real estate impacts the performance of mixed-asset portfolios within Nigeria's pension fund, aiming to offer insights for institutional investors and portfolio managers when making investment decisions. Meanwhile, Lowies et al. (2016) delve into the effects of anchoring and adjustment heuristic biases and herding behaviour on the investment decisions of listed property fund managers in South Africa. Their research enhances comprehension of the impact of heuristic-driven biases and herding behaviour on property investment decisions within an emerging economy.

Newell (2020) classifies Hong Kong, Singapore, Japan and South Korea as developed market, while identifying China, Vietnam, Loas, Cambodia, Myanmar and Malaysia as emerging markets. Newell (2020) underscore concerns raised by Asian researchers regarding the quality of real estate data in the region. These concerns predominantly revolve around data accuracy, transparency and the shorter data timeframes. Newell (2020) described real estate in Asia as dynamic and unique market features, thereby suggesting the need to further research in this specific area of continent. Consequently, there is an emphasis on institutional investors exploring new avenues for real estate investment to add value to their portfolio. These avenues encompass logistics, healthcare, data centres, student accommodation, childcare facilities and self-storage. This perspective is supported by Newell and Marzuki (2022), that emphasised the new direction of investment by institutional investors in the alternative real estate sectors. This shift is attributed to various factors including changing global demographics, technological advancements, and the impact of covid-19.

In Malaysia, the majority of research concerning institutional investors' decision-making revolves around perspectives on real estate investment trusts (REITs) and the equity market. For example, Glanville and Perry (2015) investigates how fund managers in a non-Western country such as Malaysia follow investment processes developed in the West. However, their study is investigating the investment decision making process from the perspective of equity market, thus not on the physical real estate investment decision making. Meanwhile, a study by Ahmad et al. (2017) explores the elements of behavioural biases among the institutional investors in Malaysia from the decision-making perspective in the equity market. Jaiyeoba et al. (2018) investigate the Malaysian retail investors and fund managers' investment decision behaviours. Jaiyeoba et al. (2019) broaden their investigation on Malaysian retail and institutional investors investment behaviours to identify whether the influence of psychological biases is equally applicable to investor divides. Tan and Ting (2021) explores the investment style of each Malaysian REITs listed on Bursa Malaysia. A recent study by Victor et al. (2023) evaluated the performance of real estate investment trusts (REITs) in Pan-Asia countries that are impacted by COVID-19.

Thematic analyses were used to code and analyses selected articles from the above-mentioned databases. Based on the thematic analysis, there are three main themes identified namely types of institutional real estate investment decision-making model, institutional real estate investment strategy and decision-making technique used by the institutional investors to assist their decision-making shown in Figure 4.
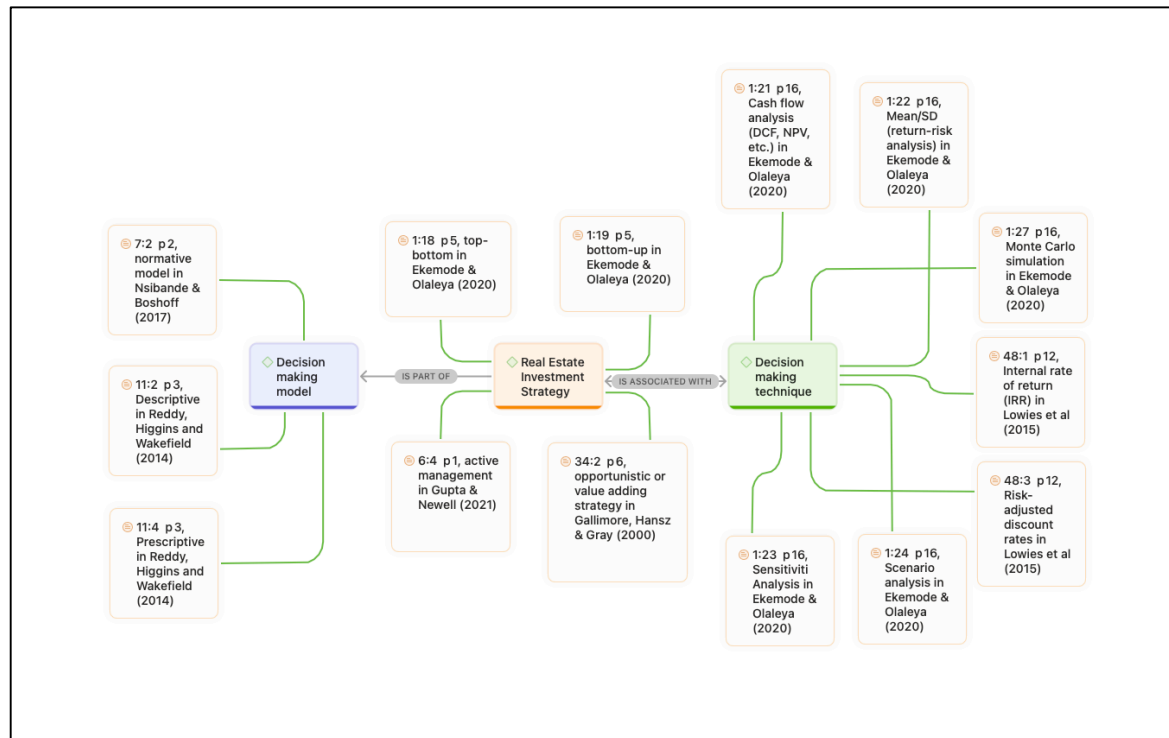
Figure 4: Thematic analysis of Theme 1, 2 and 3

3.2 Theme 1: Real Estate Investment Decision-Making Models

The literature suggests that real estate investment decision-making is a complex undertaking that imposes a significant financial burden (Bolomope et al., 2020; French, 2001; MacCowan & Orr, 2008; Nsibande & Boshoff, 2017; Parker, 2016), thus discussed the real estate investment decision during stable market conditions. The decision-making is influenced by external and internal forces that will be further discussed in the following section.

The literature also addressed the research dimension concerning market disruption, particularly amid the COVID-19 pandemics, as discussed by Gilcher (2022), Newell and Marzuki (2023), and Victor et al. (2023). Gilcher (2022) delves into how fund managers make decision amidst uncertainty, using the pandemic as a unique context to study heuristic in institutional financial practices. Newell and Marzuki (2023) analyses the pandemic's impact on global real estate capital flows, highlighting strategic implications for real estate investment and observing a significant decline in capital flows in the year 2020 followed by a robust recovery in 2021. They note a shift in risk dynamic in 2022, with covid-19 ranking lower among real estate investors' concern compared to other global risk factors. Victor et al. (2023) examines the dynamics of real estate investment trusts (REITs) in Pan-Asian countries. They indicate that covid-19 pandemic significantly impacts the real estate industries. Hence, it caused changes in supply and demand dynamics, disrupted business operations, and affected economy activities.

According to French (2001), the literature identifies three distinct, yet interrelated decision-making models which are:

(1) Normative analysis: Models that describe how decisions should be made, rationally.
(2) Descriptive analysis: Models that suggest how decisions are made.
(3) Prescriptive analysis: Models that use normative models to guide the decision maker within other limiting cognitive parameters.

3.2.1 Normative Decision-Model Making

Normative theories typically derive from mathematical axioms that characterise rational behaviour (Reddy et al., 2014). The practical application of the normative decision-making theory in real estate is to furnish real estate actors with a framework for making wealth-maximizing investment decisions. According to Roberts and Henneberry (2007), the rationalist view investment as a multifaceted process, encompassing resource allocation in anticipation of future returns. An integrated model for property investment decision-making can be developed by analysing and combining the normative models proposed in existing literature.

The composite model proposed by Roberts and Henneberry (2007) consists of the following stages:

(1) Establishing initial (real estate) investment objectives and decision criteria.
(2) Development of a comprehensive decision-making strategy (pertaining to portfolio composition and performance)
(3) Identifying appropriate properties.
(4) Gathering information (including market analysis)
(5) Forecasting potential outcomes (portfolio and property-level risk and return)
(6) Implementing decision criteria
(7) Balancing trade-offs among properties.
(8) Screening potential properties.
(9) Selecting investments.
(10) Negotiation, finalizing deals, and managing post-investment activities.

Roberts and Henneberry (2007) is the first study conducted on the real estate investment normative model for real estate investment decision-making exploring three European markets namely France, Germany, and the UK. They used a qualitative approach, investigating the essence and attributes of the decision-making process. Their study proposed a ten-stage normative model that is based on literature. The results showed that institutional investors perceive the decision-making process to be less complex than what the normative model proposes. The decision-making process effectively reduced the normative model suggesting a five-stage process in practice as opposed to the ten stage process described in the literature. The five stages of real estate investment decision making process are (1) setting initial property investment goals and decision criteria, (2) Formulating of a fully defined decision making strategy, relating to portfolio structure and performance, (3) Information input, including analysis of market conditions, (4) Prediction of outcomes, return and risk of portfolio and property level, and (5) Application of decision criteria.

Byrne et al. (2013) subsequently applied the normative decision-making model developed by Roberts and Henneberry (2007) to analyse decision-making processes within insurance companies and open-ended funds operating in the German office market. Additionally, Jackson and Orr (2021) extended the normative model of real estate investment decision-making by integrating sustainable factors. Employing a qualitative methodology, they investigate practical and conceptual sustainability concerns within the UK real estate market.

3.2.2   Descriptive Decision-Making Model

Descriptive models evaluate how decisions are actually made (Reddy et al., 2014). Modern Portfolio Theory, developed by Markowitz in 1952, can be applied mechanically after all the parameters of the asset return distributions are known. Nevertheless, real estate investment decision-making in practice occurs within an environment characterized by incomplete information, fluctuating return estimates, and evolving definitions of acceptable investment risk (French, 2001; Reddy et al., 2014). French (2001) stated that while definitive inputs to the real estate investment model (historic data or predictive forecasts) are important, fund managers are also influenced by many other non-financial considerations, such as behavioural factors, judgement, intuition, and market sentiments.

In the field of real estate, behavioural studies are limited, resulting in a scarcity of research focusing on the behavioural aspects of investment decision-making (Sah, 2011). Real estate investment decisions often involve dealing with incomplete and challenging-to-access information. Sah (2011) conducted a study aimed at understanding the descriptive behaviour of real estate investors. Through a controlled experiment, the author observed the decision-making processes of both experienced professionals and novices, revealing disparities in information utilization between the two groups. These differences are attributed to the expertise gained by professionals, a factor lacking in novices. Decision-making is a complex task, constrained by the limited capacity of the human brain, particularly its short-term memory where decisions are made. Consequently, cognitive shortcuts, known as heuristics, are employed to efficiently process information. These heuristics, developed over time, guide the flow of information within the cognitive system. Experience plays a crucial role in shaping these heuristics. Lowies et al. (2016) examined the impact of heuristic elements such as anchoring adjustments and herding behaviour on the decision-making of South African-listed property fund managers. Their study uncovered the presence of anchoring and adjustment biases in the decision-making of these managers. Interestingly, the research found that managers in South Africa are slow to adapt to new information due to the prevailing socio-political climate, rather than a lack of understanding of the information itself.

A recent study by Owusu and Laryea (2022) delved into the influence of anchoring on the decision-making processes of mutual fund investors, exploring how these bias differs across gender and levels of financial knowledge

among investors in Ghana. The findings highlighted the significant impact of the anchoring bias on investors, with the study also noting a strong, albeit statistically insignificant, association between participants' susceptibility to anchoring and their gender and financial literacy levels.

3.2.3   Prescriptive Decision-Making Model

French (2001) stated that normative models, such as the asset allocation models created by Markowitz in 1959, heavily depend on accurate inputs and, hence, yield a conclusive outcome. Nevertheless, similar to any quantitative analysis, other factors influence the decision outcome. Furthermore, these modifications to the input can be random but are typically influenced by the decision maker's perspective, and the model adapts to incorporate their assessments at a particular moment in time. This evolution will result in the development of a necessary model. For example, utilizing sensitivity analysis aids in guiding the decision-making process. French (2001) stated this requisite model as a prescriptive model that was created using a normative model. It incorporates parameters from previously observed decisions, as described by descriptive models, and includes the decision maker's current value judgements in the sensitivity analysis. Thus, these requisite models have traditionally been seen as enhancements to the normative model. However, over the last two decades, the literature on decision analysis has described this progress as the Prescriptive Model.

A prescriptive model involves implementing normative principles based on insights from descriptive decision studies to establish effective decision rules for decision-makers (French, 2001). Its objective is to assist decision-makers in making consistent and rational choices, taking into account cognitive limitations (Reddy et al., 2014). By leveraging descriptive theories of decision-making to understand cognitive processes and normative decision-making theories as benchmarks for ideal decisions, this approach promotes effective decision-making or favourable outcomes (French & French, 1997).

Chai et al. (2021) describe the prescriptive theories of decision-making that lie between two sides. It attempts to offer rational and practical recommendations for decision-makers. It entails normative principles as well as captures the actual behaviours of people. Hence, prescriptive decision research according to Chai et al. (2021) has also been named the engineering of decisions and is often studied in management science and engineering. Prescriptive decision analytics normally contain three core problems, namely: ranking, classification (sorting), and choice. The ranking aims to construct an ordinal rank of the objects from the best to the worst. Classification aims to assign objects to the classes. It can be specified as a sorting problem if predefined classes are preference-order. Choice aims to identify the best object or select a finite set of the best objects. Therefore, understanding decision making development can be conducted via two tracks. Parker (2016) investigated the property investment decision-making process of Australian unlisted property funds. Following an exploratory investigation involving semi-structured interviews with senior decision-makers in Australian unlisted property funds, the descriptive model developed largely supports the four-stage, 20-step process proposed in the normative model. This suggests the potential establishment of a prescriptive model for the investment decision-making process of Australian unlisted property funds (Parker, 2016).

3.3   Theme 2: Institutional Real Estate Investment Strategy

Based on the literature, four types of investment strategies are commonly implemented by institutional investors (Figure 5). The top-down approach involves analysing macroeconomic variables and market trends, thus narrowing down to specific properties or locations. This approach comprises an analysis of the structure of the portfolio relative to a benchmark; forecasts of return and risk for the portfolio; often top-down by property type or location; and a strategy which involves buying and selling. Whereas the bottom-up process emphasises assets, with each asset being assessed based on asset-specific factors such as the tenant, lease, potential to add value through refurbishment, etc. A cash flow model spanning 5 to 10 years will be developed, focusing on forecasting rental value changes based on the asset's specific location and characteristics rather than analysing the macro-level variables. Such portfolios are modelled bottom-up, building by building or even lease by lease, rather than top-down.

Figure 5: Institutional Real Estate Investment Strategy

Carlo et al. (2021) indicate that commercial real estate is an actively managed asset class by institutional investors. Active strategy involves more direct control of the assets, thus bearing the risk associated with property management and market fluctuation. This strategy is required in direct real estate investment (Gupta & Newell, 2020). Meanwhile, passive investing allows the investors to delegate responsibilities, therefore reducing risk exposure. Institutional investors usually construct their equity real estate exposure through real estate investment trusts (REITs), and non-listed real estate funds (Gupta & Newell, 2020).

The opportunistic/ value strategy is where institutional investors utilize the benefits of a situation to obtain a property at a reduced price. Specific circumstances that were cited included: purchasing properties in the development stage from bankrupt developers, acquiring public properties after government privatization, and obtaining property during a merger and acquisition process. Implementing an opportunistic strategy relies significantly on monitoring information and making quick decisions. Meanwhile methods of creating value focused on extraordinary management or refurbishment/remodeling (Gallimore et al., 2000). Examples included filling vacancies, restructuring leases and active tenant management. Success in this strategy relies on available expertise within the company.

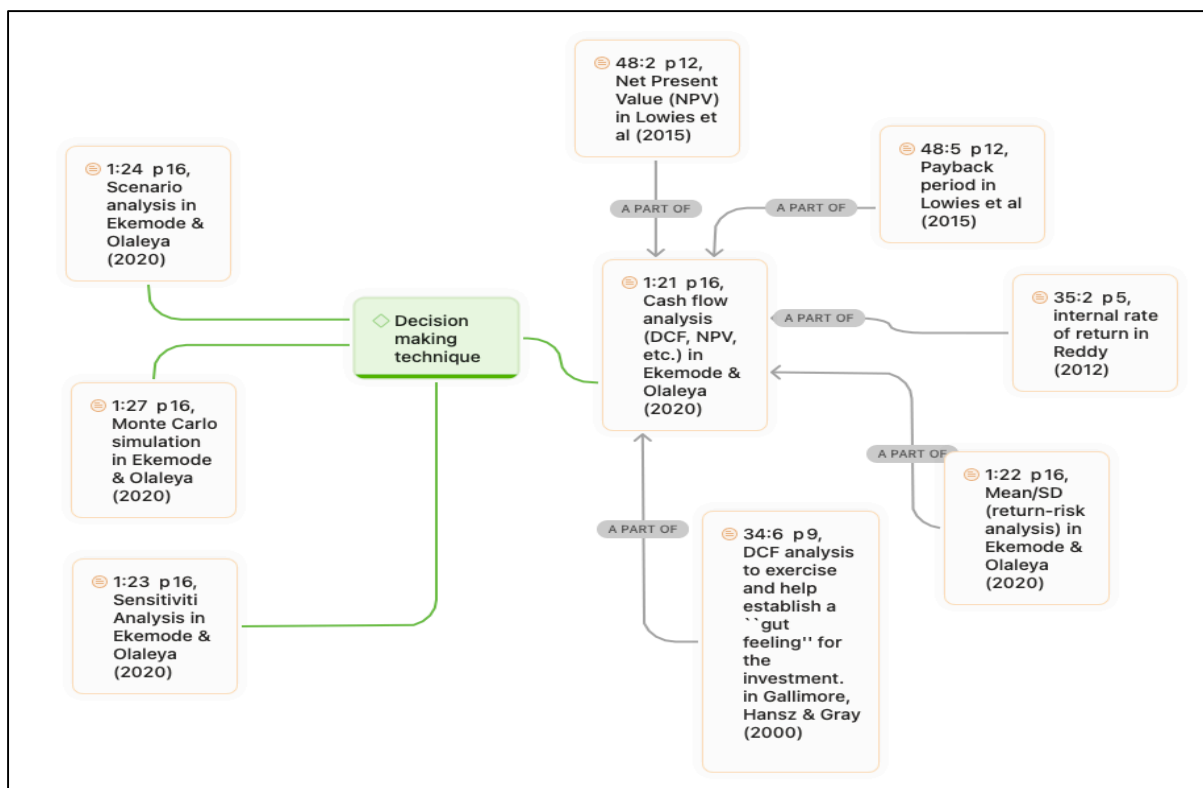### 3.4   Theme 3: Real Estate Investment Decision-Making Technique

Figure 6: Real Estate Investment Decision-Making Technique

Existing literature suggests that real estate funds are generally aided by quantitative decision-making tools and techniques. The decision-making techniques adopted by the institutional investors to assist real estate investment decision-making identified from the literature review are shown in Figure 6. A study by Reddy et al. (2014) on real estate decision practice by Australian fund managers reveals the combination of quantitative and qualitative inputs in their decisions. Quantitative analysis generally assists fund managers in valuation, financial/ investment analysis models, and economic analysis. Hence, fund managers surveyed emphasized the significance of qualitative overlay in addition to quantitative output before making final judgements. Australian fund managers highlighted critical qualitative overlays such as judgement "gut feeling', experience and understanding of investing in property assets, client or shareholder input, fund manager skills, asset quality assessment, and peer comparison (Reddy et al., 2014). Gallimore et al. (2000) also pointed out the usage of discounted cashflow (DCF) techniques in analyzing real estate portfolio return, thus, helping establish a 'gut feeling' for the investment. Gallimore et al. (2000) further explained that the DCF is utilized as a technique for conducting sensitivity analysis with numerical data to gain an intuitive understanding of an investment rather than as a rigid decision-making factor.

Meanwhile, Ekemode and Olaleye (2019) ranked the most common quantitative techniques used by institutional investors in Nigeria are cash flow analysis (DCF, NPV, etc), Mean/SD (risk-return analysis), Sensitivity analysis, Scenario analysis, Econometric modelling, mean-variance analysis, and Monte Carlo simulation. Their outcome is consistence with the findings of the previous study by Farragher & Savage (2008) that indicates NPV, and IRR techniques as important tools to evaluate returns in the institutional real estate investment decision-making process.

3.5   Factor and Benefit of Institutional Real Estate Investment

Table 2: Factors Influencing Institutional Real Estate Investment

Author/ Year	Y.M. Lam et al. (2023)	Ekemode & Olaleya (2020)	Newell & Marzuki (2018)	Nsibande & Boshoff (2017)	Lekander (2017)	Lowies & Hall (2016)	Reddy et al. (2014)	Newell & Hsu (2008)	Lay et al (2006)
Factors Influencing Institutional Real Estate Investment									
Government policy/ Regulatory		✓				✓	✓		
- Favourable tax structure/ treatment								✓	
Political factor		✓					✓		✓
Property market fundamentals	✓	✓							
- Market Rental							✓		
- Occupancy rate							✓		
- Property type (Availability & Choice of properties)	✓			✓			✓	✓	
- Supply and Demand forecast					✓		✓	✓	
- Risk/ return analysis (Attractive yield/ stable income stream)			✓		✓	✓	✓	✓	
- Transaction volume							✓		
- Valuation (Capitalisation rate)							✓		
Regulatory mechanism (barriers to entry)		✓							
Geographic Location – CBD, non-CBD	✓			✓		✓			
Economy outlook (Macro level)						✓	✓		✓
Financial/ Capital Market Indicator							✓		
Investment style	✓								
Social-Cultural factor						✓			✓
Shortage of quality local commercial properties								✓	
Legal factor – long term leases			✓						✓

Institutional investors generally consider four main factors namely economics, political, legal, and real estate market fundamental in their investment decision making. Among factors identified from the literature review are listed in Table 2. Ekemode and Olaleye (2019) highlighted the government policies, political uncertainties, property market fundamentals and regulatory mechanisms as the factors that influence institutional investors' consideration to include real estate in their portfolio allocation. Whereas Reddy et al. (2014) emphasize real estate market fundamentals that influence institutional real estate investment which are property statistics (rental, occupancy, vacancy rates, net absorption, outgoing, lease profile, etc.), demand and supply forecasts (sector-specific markets rentals and growth forecast), risk/ return analysis, transaction volume, valuation (capitalization rate), market indices/ benchmarks and construction/ redevelopment costs. Apart from real estate market fundamentals, economic factors such as inflation rate, unemployment rate, interest rate, gross domestic product, consumer price index and demographic data are also important factors in real estate investment decision-making (Reddy et al., 2014).

In 1994, Keogh and D'Arcy introduced the concept of property market maturity by comparing the office markets in London (identified as mature) with Barcelona and Milan (both identified as emerging). This study acknowledged the complexities of real estate markets and proposed a comprehensive perspective for interpreting market maturity, in addition to economic analyses. The research outlined six characteristic that define a mature market: 1) ability to

accommodate a diverse range of usage and investment objectives, 2) flexibility for market adjustments in both short and long terms, 3) presence of a well-developed property profession with its associated institutions and networks, 4) extensive information dissemination and research activities, 5) openness of the market in spatial, functional, and sectoral aspects, 6) establishment of standardized property rights and market practice. Livingstone, N., & Sanderson, D. (2021) and Newell G. (2016) emphasize that the characteristics mentioned are closely linked to market transparency. These authors indicate the significance of real estate market transparency in the decision-making process of institutional investors regarding real estate investments.

The benefits of institutional real estate investment are also highlighted by numerous authors such as Newell and Marzuki (2023); Sanfelici and Magnani (2021); Gupta and Newell (2020); Nsibande and Boshoff (2017); Lekander (2017); Reddy et al. (2014). Table 3 shows the benefits of the inclusion of real estate in the institutional investor's portfolio. The significance of the inclusion of real estate is steady income cashflows, inflation hedging, risk reduction through diversification, return enhancement, illiquid and long-term investment, attractive yield, ability to take control of the asset, and exposure to domestic and international real estate asset.

Table 3: Benefits of Institutional Real Estate Investment

Author/ Year	Newell & Marzuki (2023)	Gupta & Newell (2021)	Sanfelici & Magnani (2021)	Nsibande & Boshoff (2017)	Lekander (2017)	Reddy, Higgins and Wakefield (2014)	Reddy (2012)
Benefits of Real Estate Investment							
Strong total return - stable income flow	✓	✓	✓		✓	✓	✓
Portfolio diversification	✓	✓	✓		✓		
Exposure to domestic and international real estate asset	✓						
Attractive yield and use of high-quality real estate investment managers	✓						
Long life of a real estate investment & Illiquid		✓				✓	
Ability to take control of the asset				✓			
Capital preservation					✓	✓	
Hedge against inflation		✓	✓				

4   CONCLUSION

In conclusion, the trajectory of institutional real estate investment research reflects a notable expansion, unveiling the complicated nature of decision-making models within this domain. The outlining of normative, descriptive, and prescriptive models by French (2001) underscores the multifaceted approaches employed by institutional investors. However, the critical analysis reveals that no singular model can comprehensively encapsulate the dynamics of real estate investment decisions.

The imperative takeaway from this review is the recognition of the indispensability of a balanced approach. Successful decision-making in institutional real estate investment necessitates the integration of quantitative analysis, qualitative insights, and human judgment. This synthesis of dimensions enables investors to navigate the complexities of the real estate market with enhanced confidence, optimizing their performance over the long term.

Moreover, the review casts a spotlight on the existing research landscape, exposing a conspicuous bias towards developed countries like the US and the UK. The scarcity of research in developing countries, notably in Malaysia, presents a glaring gap in the current body of knowledge. This provides an opportunity for future research to delve into the unique dynamics of institutional real estate investment in developing economies. By doing so, researchers can contribute valuable insights that bridge the gap between theory and practice, enriching our understanding of the global real estate investment landscape.

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