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A Systematic Literature Review of Apartment Investment

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ABSTRACT

This research aims to explore previous publications related to the factors that influence apartment investment behavior and to find out what factors are dominant in influencing this behavior. This research reviews journal articles by searching for publications based on the Scopus and Google Scholar databases in April 2024. After screening, a total of 86 journal articles were identified. It was then discovered that as many as 78 journal articles were not related to apartment investment behavior. Eight articles were selected to be examined with descriptive analysis showing the year of publication, source and article citation. From the eight articles selected, it can be found what factors and dominant factors influence apartment investment. This publication shows that the factors that can influence apartment investment behavior are; environment, characteristics, economic (price & financial), quality, location, product, government policy, promotion, and consumer lifestyle. Of all the factors mentioned, economic (price & financial) is the dominant factor that can influence apartment investment behavior.

INTRODUCTION

Population growth throughout the world continues, although the rate of growth varies across countries and regions. Population growth is influenced by factors such as birth rates, death rates, and migration. In many developing countries, population growth is usually higher due to high birth rates and increased life expectancy. On the other hand, in some developed countries, population growth is slower or even negative due to factors such as low birth rates and aging populations. However, in general, it is predicted that the world population will continue to grow, although perhaps at a slower rate than in previous decades. Based on World Bank data, the world population will reach 7.95 billion people by the end of 2022. This number has increased by 0.88% compared to the previous year (year-on-year/yoy). This trend is influenced by demographic changes in various countries, including family policy programs, public health, and economic factors. Rapid population growth can put pressure on natural resources, the environment and infrastructure, while slow growth can create economic challenges such as a decline in the workforce and an increasing number of elderly populations. In the last decade, the world population in 2022 has increased by 11.34%. Likewise, compared to six decades ago, the world population in 2022 will increase by 162.37%. In 1960, the world population only reached 3.03 billion people. The number continues to grow consistently every year until 2022, as seen in the graph below.

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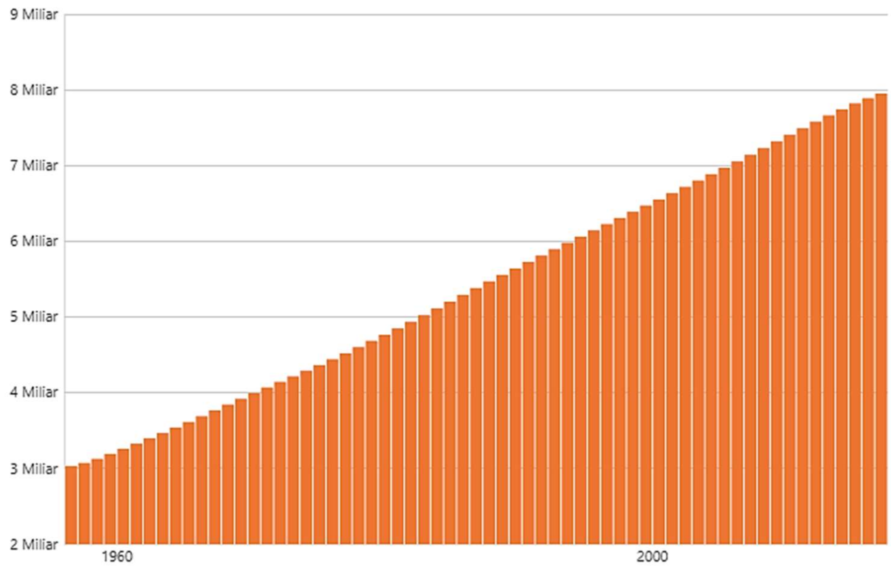

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Figure 1. Total Population in the World (1960-2022)

Based on gender, the global male population dominates, reaching 4 billion people in 2022, while the female population is 3.95 billion. India is the country with the largest population in 2022, reaching 1.42 billion people. Next, China is recorded as having a population of 1.41 billion people, followed by the United States 333.28 million people, Indonesia 275.5 million people, and Pakistan 235.82 million people. Then, the country with the next largest population is Nigeria, namely 218.54 million people in 2022. Then, Brazil 215.31 million people, Bangladesh 171.18 million people, Russia 143.55 million people, and Mexico 127.5 million people. On the other hand, the country with the smallest population is Tuvalu, namely only 11.31 thousand people in 2022. Next, Nauru with a population of 12.66 thousand people, Palau 18.05 thousand people, British Virgin Islands 31.3 thousand people, as well as St Martin 31.79 thousand people.

Along with the consistent growth of the world's population every year, land use has an impact which causes limitations. Land is a physical environment consisting of climate, relief, soil, water and vegetation as well as objects on it, including the results of past and present human activities. Land in relation to humans and the activities they carry out is a unit that is interconnected and cannot be separated. Human activities always develop from time to time both based on quantity and quality to support their lives. The need for built-up land continues to increase along with diverse human activities and increasingly rapid population growth, causing physical development in the form of non-agricultural areas such as settlements and non-residential buildings. The large need for land to fulfill activities and the impact of population growth causes conflict, because land availability is limited so that there is land use that is not in accordance with the proper proportions. The need for land is increasing while land area is not increasing and this will continue to cause land to become a scarce resource. Competition between land uses and land uses is a result of limited land for certain purposes, which can give rise to parties using land that they should not and making a profit.

Furthermore, as the human population increases, land becomes increasingly narrow, so development will be increasingly limited. One of them has an impact on human housing which must adapt to these problems. Vertical housing is a form of fulfilling human needs for housing by adapting to the problem of limited land for housing. How many articles have been published regarding apartment (housing) investment? Apartments are one of the vertical residences that are often found today. Apartments are a form of commercially managed accommodation, which is provided for everyone to obtain services in the form of housing for rent. Apartments are considered a practical residence to overcome current land limitations. The apartment environment was developed to meet most of the residents' needs. Human needs may be both physiological and social and related to security, respect, and self-expression. People want their apartment environment to have attractive aesthetics and be in an easily accessible place with well-developed infrastructure, convenient communication, and good roads. Apart from that, housing must also be cheap, and comfortable, with low maintenance costs. People are also interested in an environment that is ecologically clean and comfortable to live in.

The appreciation in home/dwelling values has created good opportunities for investors to buy property as a form of investment to multiply their wealth creation capabilities (Sean & Hong, 2014). There are two types of potential profits from purchasing property, namely rental payments and capital gains from increasing the value of the property. Tan (2008) states that home/residential buyers believe that they will obtain a profitable rate of return through rental income and capital growth and it is proven that buying property is a good form of investment to hedge against inflation. The property market is influenced not only by local property investors but also by international and regional property investors.

It must be acknowledged that there are several factors that determine apartment purchasing or investment behavior that are directly related to the decision to buy or invest in an apartment. Engel (2012) revealed that consumer attitudes and decisions consist of three main factors of consumer behavior, namely: 1) Individual Differences, 2) Environment, and 3) Psychological. Individual differences factors consist of five main variables, including: a) Demographics, b) Resources, c) Motivation, d) Knowledge, and e) Attitudes. Then next are environmental factors which also consist of five main variables, namely: a) Culture, b) Social class, c) Family, d) Personal Influence, and e) Situation. The final psychological factor consists of 3 variables, namely: a) Information processing, b) Learning, and c) Attitude changes. There are a small number of studies related to apartment investment, regarding the perspective of factors that influence apartment investment behavior. Previous research was conducted by Tung, Hanh, Nga, & Nghia (2014) in Ho Chi Minh City, where there was an increase in demand for housing when the apartment market was plummeting. In his research, it was found that the decision to buy an apartment was influenced by three important factors, namely environment, characteristics and finance respectively. Furthermore, research conducted by Khrais (2016) in the city of Irbid, Jordan, aimed to see the extent of the impact of factors that influence apartment housing purchasing behavior. His research shows that the factors that have a significant influence on investment decisions are environment, quality and location. Research conducted by Sundrani (2018) which analyzed the importance of factors influencing apartment buyers, found that buyers of various types of apartments gave different levels of importance to influencing factors. The first most important factor is economic (price & financial), location, and product. Likewise, research conducted by Shahriar & Sajib (2021) aims to explore the factors that influence apartment investment decisions in the city of Dhaka, Bangladesh. This research found six factors, namely environment, economics (price & financial), quality, location, product, and promotion. As for research by Islam, Saidin, Ayub, & Islam (2022) which aims to develop a model to look at the factors of investing in apartments. A factor was found that had not previously been found in other research, namely favorable government policy. Likewise, research by Bui & Nguyen (2023) highlights that consumer lifestyle is truly an interesting new factor compared to previous research on the same topic.

In examining the factors that influence apartment investment behavior, it was found that there are several factors that can influence it. The preliminary study found that gaps in factors influencing apartment investment behavior, which were previously recommended for exploration, still exist. The main aim of this systematic literature review is to review existing publications related to apartment investment to answer the following questions:

Q1: Which journal is the most relevant/significant in discussing apartment investment?
Q2: What factors influence apartment investment behavior?
Q3: What factors dominantly influence apartment investment behavior?

LITERATURE REVIEW

Investment

Investment is described as a person's commitment to the goals, procedures, and identities associated with the learning process (Zhang, 2023). Investments are made with the hope of getting a positive return in the form of income, capital gains, or appreciation in asset value. In a broader sense, investment is not consuming or using current income and holding it for a certain period of time with the aim of getting benefits in the future. Keynes and Fisher both argued that investments are made until the present value of expected future income, at a margin, equals the opportunity cost of capital. This means that the investment is made until the net present value is equal to zero. Keynes (1936) argued that investment is made until there is no longer a class of capital assets whose marginal efficiency exceeds the current interest rate. The fundamental difference between the "Keynesian view" and Fisher ("Hayekian view") lies in the perception of risk and uncertainty, and how expectations are formed. Keynes did not consider investment as a process of adjustment towards equilibrium. Hayek (1941) and Fisher (1930), on the other hand, considered investment as an optimal adjustment path to an optimal capital stock. In Keynesian theory, investment is not determined by the underlying optimal capital stock. Instead, real or radical uncertainty takes a central position. Keynes believed that humans were "animal souls" and this, coupled with irrational and volatile expectations, made thinking of investing as a process of adjustment toward equilibrium futile. From Keynes and Fisher emerged modern investment theory which combines various aspects of Keynes and Fisher (Eklund, 2013).

Investment Behavior

Behavior and intention are two terms that are closely related. Behavior will be more meaningful if it is linked to something measurable. Meanwhile, intention is a planned decision that has a goal or belief that is oriented towards a certain goal. Meanwhile, intensity is the level of sensation experience related to a physical stimulus. Behavior refers to real actions that can be observed directly and are related to what a person (investor) does. Behavior in life is an aspect of reality (Black, 1976) and in social life it has various aspects such as social stratification, culture, organization and social control. Behavior in social contexts shows different variations. The differences that emerge in behavior will be determined by social aspects.

Apartment/Housing Residential

The Theory of Housing offers a limited perspective on the theory but can serve as a necessary check on other theories. The problems of Housing Theory relate to the balance between abstract generalizations and concrete empirical/historical analysis. Housing is a multifaceted topic. In English-language literature, the word "housing" is usually a noun and a verb (Ruonavaara, 2018). Housing is a material object, an item that can be produced and destroyed, produced and consumed, felt and experienced, bought and sold. This approach is in line with Kemeny's emphasis on the embeddedness of housing: housing is an integral part of society that should not be seen as separate from the social structure (which for Kemeny is also part of culture). The point here is that in this case, the reception of Kemeny's work is by separating housing from society by not recognizing the "larger" theoretical hypothesis about the differences in socio-cultural structure between people who own houses and people who rent out costs.

RESEARCH METHODS

A systematic literature review of the concept of apartment investment was conducted using the preferred reporting items for systematic reviews and meta-analyses (PRISMA) technique, which has transparency, reliability, and replicability of results, as well as limiting bias (Siddaway et al., 2018). The main databases used for this research are Scopus and Google Scholar, which are the largest databases for collecting abstracts, references and works of world-renowned authors. Google Scholar is essential for eliminating publication bias because it collects both scholarly literature and grey literature and is recognized as the search engine of choice for many researchers. To report publications for the systematic literature review, PRISMA guidelines, which call for four steps (as shown in Figure 1), were used. To explore the articles related to architecture with the theme of apartment investment, a set of words associated with these terms was used from the following keywords of apartment investment, apartment purchase, apartment purchase intention.

On Scopus, the keywords used for searching were (apartment investment) AND apartment purchase. This database provided a total of 74 documents between 2013 to 2022. In Google Scholar, a survey using (apartment investment) and (apartment purchase), (apartment purchase intention) obtained a total of 12 documents from 2013 to 2022. With Thus, the total articles obtained related with The topic of apartment/housing residential investment is 86 articles. All 86 publications were considered in the screening phase. All 86 articles can be used as analysis material or no articles are considered duplicates. In the eligibility phase, the remaining 86 documents were screened. For those not related to factors apartment investment or apartment purchase, 78 articles were excluded as they were outside the scope of the research.

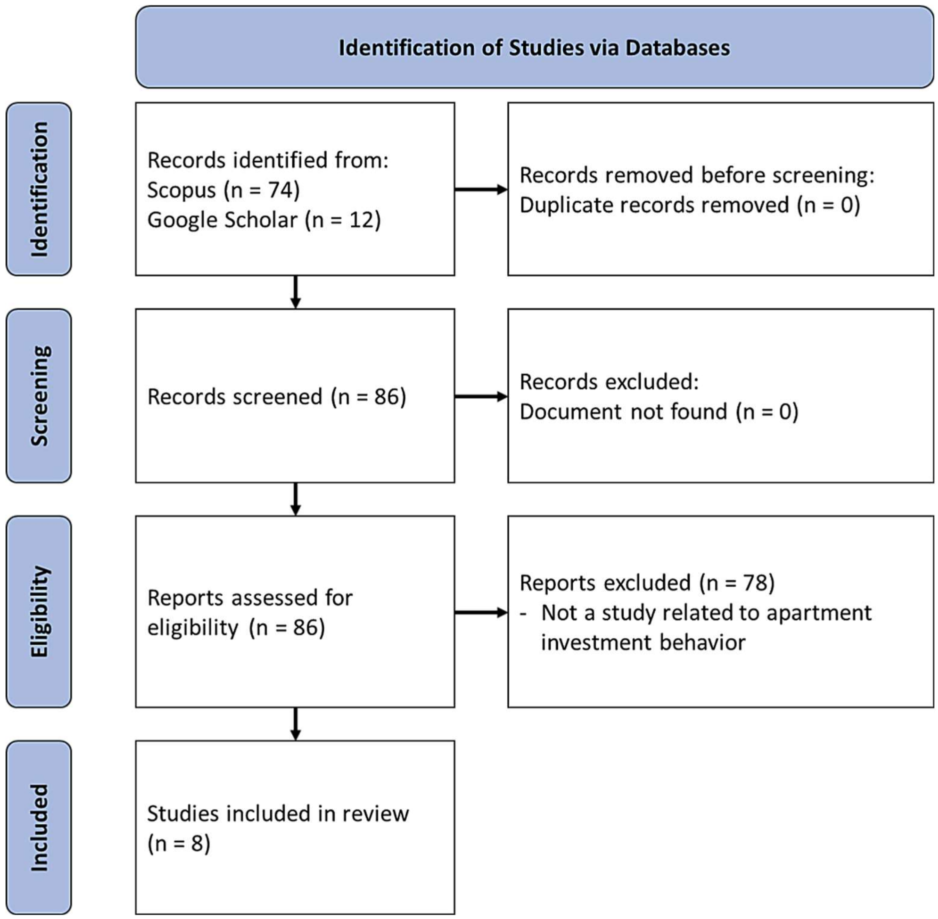

Figure 2. Flow Diagram for Systematic Literature Review Based

This section presents the results of the systematic literature review about two major analyses. Part 1 descriptive analysis was conducted to answer Q1 using which journal is the most relevant/significant in discussing apartment investment? Publication contributing year, source, and number of citations. The part 2 thematic analysis was carried out to answer Q2 and Q3, identifying the theme of factor affect apartment investment and what are the most dominant factors influencing apartment investment.

RESULTS AND DISCUSSION

This section presents the results of a systematic literature review of three main analyses. The descriptive analysis part 1 was conducted to answer Q1 using contributing publications a year, source, and a number of citations. Part 2 of the thematic analysis was carried out to answer Q2 and Q3, identifying what factors influence apartment investment behavior and the dominant factors that influence apartment investment behavior.

Apartment Investment Publications by Descriptive Analysis

To see which relevant journals discuss apartment investment, the eight selected articles were categorized based on year, source, and number of citations, as shown in Table 1.

Table 1. The List of Publications in The Systematic Literature Review

Article Title	Author	Year	Source	Citations
Factors affecting on the Apartment purchase decision of officers in Small and Medium -	Le Thanh Tung, Huynh Cam Hanh, Nguyen Thi Thu Nga, Nguyen Hieu Nghia	2014	OSF Preprints	(20)

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Article Title	Author	Year	Source	Citations
sized enterprises in Ho Chi Minh City				
Factors Influencing the Purchase of Apartments: Some Empirical Evidence	Nasar K. K, Manoj P. K.	2014	CLEAR IJRMST	(16)
Factors Affecting The Jordanian Purchasing Behavior Of Housing Apartments: An Empirical Study In Irbid City	Ibrahim Mohammed Khrais	2016	European Scientific Journal	(3)
Factors influencing home-purchase decision of buyers of different types of apartments in India	Deepak Murlidhar Sundrani	2018	International Journal of Housing Markets and Analysis	(15)
Determinants of Customer's Apartment Purchase Intention: Is the Location Dominant?	Phuong Viet Le-Hoang, Yen Truong Thi Ho, Danh Xuan Luu, Truc Thanh Thi Le	2020	Independent Journal of Management & Production (IJM&P)	(7)
Factors Affecting Purchase Decision of Residential Apartment of Lower-Middle and Middle- Income Group in Dhaka City	Nayeem Shahriar, Md. Imran Hossain Sajib	2021	International Journal of Research Publication and Reviews	(0)
Modelling behavioural intention to buy apartments in Bangladesh: An extended theory of planned behaviour (TPB)	Muhammad Ariful Islam, Zainil Hanim Saidin, Meor Azli Ayub, Md Shamimul Islam	2022	Heliyon	(9)
Factors Affecting Young Customer's Apartment Purchasing Intention INDIAN City, Binh Duong, Vietnam	Khoa Quoc Bui Bui, Thanh Tien Nguyen	2023	Migration Letters	(0)

Year of Publication

The selected articles were published between 2014 and 2023. The first article discussing factors influencing apartment investment started in 2014, ten years ago. Then two years later, in 2016, the concept was developed again. Likewise for the next two consecutive years, namely in 2016 and 2018, one new publication was found to be released each year. However, since 2018 new journals have been discovered about similar concepts from 2020 to 2023, where every year one publication is released.

Source

This publication is published once per journal in OSF Preprints Journal, CLEAR IJRMST, European Scientific Journal, International Journal of Housing Markets and Analysis, Independent Journal of Management & Production (IJM&P), International Journal of Research Publication and Reviews, Heliyon, and Migration Letters.

Citations

Existing data shows that the most cited publication is Tung, Hanh, Nga, & Nghia (2014) with a total of 20 citations, researching the factors that influence officers' apartment purchasing decisions at Small and Medium Enterprises (SMEs) in Ho City Chi Minh. Then the next research with a total of 16 quotes is Nasar & Manoj (2014), examining what factors influence customers' decisions in buying an apartment. In his research, it was found which factors were the most or least significant. Sundrani (2018) has a total of 15 citations, with the aim of the research being to determine the importance of factors other than factors related to buyers that influence the purchase of an apartment. The next research by Islam, Saidin, Ayub, & Islam (2022) has a total of 9 citations, followed by the research of Hoang, Ho, Luu, & Le (2020) with a total of 7 citations, and finally the research of Khrais (2016) has a total of 7 citations. 3 citations and the remaining two studies are unknown or have 0 citations.

Factors that Influence Apartment Investment Behavior by Thematic Analysis

Table 2. Summary of Factor Affect Apartment Investment Findings in The Thematic Analysis

Author (Year)	Factors that Influence Apartment Investment								
	Environment	Characteristics	Economic (Price & Financial)	Quality	Location	Product	Government Policy	Promotion	Consumer Lifestyle
Le Thanh Tung, Huynh Cam Hanh, Nguyen Thi Thu Nga, Nguyen Hieu Nghia (2014)	Significant Influence	Significant Influence	Significant Influence	No Significant Effect	No Significant Effect	No Significant Effect	No Significant Effect	No Significant Effect	No Significant Effect
Nasar K. K, Manoj P. K. (2014)	No Significant Effect	No Significant Effect	Significant Influence	Significant Influence	Significant Influence	No Significant Effect	No Significant Effect	No Significant Effect	No Significant Effect
Ibrahim Mohammed Khrais (2016)	Significant Influence	No Significant Effect	No Significant Effect	Significant Influence	Significant Influence	No Significant Effect	No Significant Effect	No Significant Effect	No Significant Effect
Deepak Murlidhar Sundrani (2018)	No Significant Effect	No Significant Effect	Significant Influence	No Significant Effect	Significant Influence	Significant Influence	No Significant Effect	No Significant Effect	No Significant Effect
Phuong Viet Le-Hoang, Yen Truong Thi Ho, Danh Xuan Luu, Truc Thanh Thi Le (2020)	No Significant Effect	No Significant Effect	Significant Influence	No Significant Effect	Significant Influence	Significant Influence	No Significant Effect	No Significant Effect	No Significant Effect
Nayeem Shahriar, Md. Imran Hossain Sajib (2021)	Significant Influence	No Significant Effect	Significant Influence	Significant Influence	Significant Influence	Significant Influence	No Significant Effect	Significant Influence	No Significant Effect
Muhammad Ariful Islam, Zainil Hanim Saidin, Meor Azli Ayub, Md Shamimul Islam (2022)	No Significant Effect	No Significant Effect	Significant Influence	Significant Influence	No Significant Effect	No Significant Effect	Significant Influence	No Significant Effect	No Significant Effect
Khoa Quoc Bui, Thanh Tien Nguyen (2023)	Significant Influence	No Significant Effect	Significant Influence	No Significant Effect	Significant Influence	No Significant Effect	No Significant Effect	No Significant Effect	Significant Influence

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Economic (Price and Financial)

The first dominant factor that can influence apartment investment mentioned in the publication of Tung, Hanh, Nga, and Nghia in 2014 is economic; price & financial (Tung et al., 2014). Nasar and Manoj research in 2014 also stated that economics (price & financial) are factors that can influence apartment investment. Furthermore, other publications are Sundrani (2018); Hoang, Ho, Luu, and Le (2020); Shahriar and Sajib (2021); Islam, Saidin, Ayub, and Islam (2022); Bui and Nguyen (2023) revealed that among the factors that influence apartment investment, one of them is economic (price & financial). It can be concluded that seven of the eight selected articles reveal that the factors that influence apartment investment behavior are economic (price & financial), so this factor becomes the dominant factor in determining apartment investment.

Location

The next factor is location which was found to have a significant influence on apartment investment behavior in research conducted by Nasar and Manoj in 2014. Khrais research in 2016 also found similar results, where location was a significant influencing factor. Sundrani, who conducted research in 2018, also succeeded in revealing that one of the factors that influences investment behavior is location. Other publications include Hoang, Ho, Luu, and Le (2020); Shahriar and Sajib (2021); Bui and Nguyen (2023) also found that location is one of the factors that have a significant influence in influencing investment and purchasing behavior. So it can be concluded from the eight selected published articles, six of which found that location is an influential factor in determining apartment investment behavior.

Environment

Environment is known to be the next factor found by several previous studies and influences investment and apartment purchasing behavior. The first research by Tung, Hanh, Nga, and Nghia in 2014 found that the environment was a significant factor influencing apartment investment behavior. Khrais further revealed in his research in 2016 that the environment is a factor that has a significant influence on investment behavior. In 2021, Shahriar and Sajib in their research found similar results, which stated that one of the factors that influences investment behavior is the environment. Finally, from selected articles, research by Bui and Nguyen (2023) found four factors that influence investment behavior, one of which is environmental factors. Of the eight selected articles, four of them found similar results where the environment is a factor that influences apartment investment behavior.

Quality

The next factor that influences apartment investment behavior based on previous research is quality. Nasar & Manoj research (2014) is the first research selected to reveal that quality is a significant influencing factor. Apart from the environment, Khrais (2016) in his research stated that quality is a factor that can influence apartment investment behavior. Followed by Shahriar & Sajib (2021) who in their research intend to categorize the 25 variables considered into factors. It was found that there are 6 factors that influence apartment investment behavior, and one of them is quality. And finally, Islam, Saidin, Ayub, and Islam (2022) found one factor, namely quality, among three other factors that influenced investment behavior in their research. So it was concluded that of the eight selected articles, four articles revealed that quality was a factor that significantly influenced apartment investment behavior.

Product

The fifth is a product factor that can influence apartment investment behavior. Based on research by Sundrani (2018) which aims to determine factors other than factors that influence apartment investment behavior, it was found that product was the second most important factor discovered by him. Hoang, Ho, Luu, & Le (2020) also added that based on research conducted, it was found that product is one of the factors that influences apartment investment behavior. And finally, from the selected article, Shahriar & Sajib (2021) revealed that there are six factors that influence investment behavior, one of which is the product factor. So it can be concluded that from the eight selected articles, three articles state that product is a factor that has a significant influence on apartment investment behavior.

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Characteristics, Government Policy, Promotion, and Consumer Lifestyle

Characteristics are one of the factors that influence investment behavior, although of all the selected articles only research by Tung, Hanh, Nga, & Nghia (2014) states this. The characteristics referred to in the research are related to size, external architecture, building quality, level of maintenance, garage size, and legal conditions of the apartment. Then the next factor is government policy which was revealed by research by Islam, Saidin, Ayub, and Islam (2022) as a factor that determines apartment investment behavior. The government policies in question are beneficial policies such as price restrictions and different housing trade policies, as well as government monetary subsidies, which can encourage developers to build affordable housing. Furthermore, there is promotion as an influential factor as stated by Shahriar & Sajib (2021) in their research which consists of five variables. Finally, there is consumer lifestyle as a factor that influences apartment investment behavior. Research conducted by Bui and Nguyen (2023) states that differences in lifestyle can give rise to variations in behavior and thinking, resulting in different preferences and purchasing behavior. The last four factors discussed are factors that can be said to have the least influence among other factors. Because of the eight selected articles, these factors were only supported by one previous study for each factor.

CONCLUSION

Overview systematic literature This analyze related publications with investment apartment, which is more addressed factors what influence behavior investment apartment. For analyze findings, researchers use descriptive analysis and analysis thematic for answer each one questions Q1, Q2, and Q3. Analysis descriptive used for answer Q1; from for the period 2013 - 2022, 8 articles were selected categorized as based on year, source, and amount quote. First article starting in 2014 selected 2 articles. Next, between 2016 - 2022 respectively published 1 article. Articles related to the topic apartment investment or apartment purchase have been published in the journals OSF Preprints, CLEAR IJRMST, European Scientific Journal, International Journal of Housing Markets and Analysis Independent Journal of Management & Production (IJM&P), International Journal of Research Publication and Reviews, Heliyon, Migration Letters. Existing data shows that the most cited publication is the work of Tung, Hanh, Nga, & Nghia (2014) with 20 citations. Followed by Nasar & Manoj (2014) study with 16 citations, and Sundrani (2018) article with six 15 citations.

The level of community demand for apartment availability is quite high. This condition makes it attractive for buyers/investors and researchers regarding apartment investment. There are several factors that can influence apartment investment, including environment, characteristics, economic (price & financial), quality, location, product, government policy, promotion, and consumer lifestyle. However, there are three factors that are the main consideration for buyers in deciding to purchase an apartment, namely price, location and quality. Thus, property developers, especially apartments, must pay attention to these three factors (price, location and quality) when running an apartment business. Previous researchers' interest in studying apartment investment is still relatively limited compared to residential house investment, but research on apartment investment continues to occur every year.

Limitations

These are two main limitations in this study that need to be considered. The first one is that the extraction of data in this systematic literature review was limited to two databases, which are Scopus, and Google Scholar, and the databases were surveyed in 2022 using the methodology mentioned in Part 3. There might be articles in other databases related to this topic that are not included in this study. Second, the scope of our review results should be discussed. This study only examines the factors that influence apartment investment. As a result, other research related to residential houses could not be included in this research for fear that there would be a bias between landed houses and apartments.

Future Research

Regarding the discussion section, due to the small number of studies on influencing factors for apartment investment, it is hoped that further research will be able to study not only limited to apartment investment behavior, but also expanded to residential houses. In this way, more related literature will be obtained, so that it can be analyzed further into what factors influence residential investment behavior, both apartments and landed houses, and how these factors relate to residential investment behavior. From this limitation, a methodological approach may limit the results. It would be interesting

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to enlarge the study to include other studies, databases, or academics to indicate more outcomes. In reference to the analytical method, future studies should proceed to increase the empirical literature associated with apartment investment.

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