

AsRES_2018_-
_Njo_Anastasia_May4.pdf
by

Submission date: 28-May-2019 06:16PM (UTC+0700)

Submission ID: 1136878495

File name: AsRES_2018_-_Njo_Anastasia_May4.pdf (282.87K)

Word count: 6324

Character count: 34085

The Family Life Cycle Difference in Dual Motive Property Decision

Njo Anastasia¹

Associate Professor

Finance Program, Faculty of Economic, Petra Christian University, Indonesia

Email: anas@petra.ac.id

Irvan Wiratama

Graduate Student

Finance Program, Faculty of Economic, Petra Christian University, Indonesia

Email: irvanwiratama@gmail.com

I Made Narsa

Professor

Department of Accounting, Universitas Airlangga, Indonesia

Email: narsa_ua@yahoo.com

ABSTRACT

The purpose of this research is to determine the difference between rational factors and irrational factors underlying dual motives in property decision based on a family life-cycle. The independent variables used in this study are rational factors and irrational factor. The variables used to measure rational factors are physical, location, environment, and financial. Correspondingly, the irrational factors are psychology, emotion, intuition and socialisation variables. The dependent used in this study is dual motives, hence consumption and investment motives. The two data samples studied are younger couple and midlife household. The method of analysis used is a non-parametric test, which compares the differences between the two independent groups. As a result, this research bears three findings: the first implies that physical, environment, intuition, and socialisation significantly differentiate dual motives based on family life-cycle. Second, the study suggests that physical and socialisation significantly separate dual motives by younger couple. The last finding implies that no factors significantly distinguish dual motives in midlife household.

Keyword: *Dual Motives, Family Life-Cycle, Rational and Irrational Factor*

Acknowledgement:

The authors gratefully acknowledge that the present research is supported by the Ministry of Research, Technology and Higher Education of the Republic of Indonesia under the "Penelitian Strategis Nasional 2018" (PSN) Research Grant Scheme (No: 002/SP2H/LT/K7/KM/2017).

¹ Corresponding Author

INTRODUCTION

The process of owning a residential house creates two motives: consumption and investment motives. Both motives together are also called as *dual motives* (Arrondel, Badenes, & Spadaro, 2010). The foundation of consumption decision is named as a financial aspect, while the decision to invest is based on the property aspect and the value of the property (Haavio & Kauppi, 2011). In making such decision, though it has been logically and carefully decided, there are psychological factors that bias the individual (Kudryavstev, Cohen, & Hon-Snir, 2012). A study by Suwitro and Njo (2015) shows how rational and irrational factors influence a consumer's judgment when deciding to buy a property. Rational factor includes the physical condition of the property, a strategic location of the property, a comfortable neighbourhood of the property, and finally the financial health of the buyer. On the other hand, irrational factor includes the buyer's behaviour and way of thinking when making consideration to buying, the buyer's emotion that influences his desire and interest, the buyer's intuition, and the involvement of several other people in making the decision. The research shows how *psychology, emotion, and intuition* significantly differs the decision of consumption and investment, proving that there are irrational factors that influence the decision.

The property market has a *weak-form efficient*, where price change in the market does not reflect complete information (Fama, 1970), making the property market inefficient with such bias. Fundamental variables are unable to completely explain the price change considering the existence of irrational factors that affect the decision of consumption and investment (Case & Shiller, 1990). Salzman & Zwinkels (2017) stated that understanding the property market's behaviour could be beneficial in reducing the uncertain price change, while also explaining the reason for property purchase. Also, family plays a role in the property market. The role of the family in the market would be able to show how the family's life cycle corresponds with their need of residence. *Family life-cycle* is categorised into the family's age and the dependency of the child or children. Age is divided into *younger, midlife, and older*, while the dependency of the child or children is divided into *couple, parents, and household* (Lee, Park, & Montalto, 2000).

Family life-cycle profoundly influences the consumer and investor's need and preference, each being different depending on each stage (Preston & Taylor, 1981). *Younger couple* family type is a family of young age with no children. Their need would be different with the *midlife household* - a family with older age and having children who are no longer dependent on their parents (Lee *et al.*, 2000). Considering its young age and their possessing no

residence, *younger* family type has a higher probability of consumption motive. In comparison, *midlife* family type is at the stage where they already accumulated a more significant amount of riches, increasing their urge to invest in a residence as a preparation towards retirement. Lastly, as for the *older* family type, their need is no longer on investing, but to enjoy their retirement and to enter the stage distributing their riches (Dornbusch & Fisher, 1994). This condition shows that the *dual motives* in *older family life-cycle* are unable to show any difference.

80% - 90% of the *younger couple* who buys a house for a residence has a higher probability of consumption (Speare & Goldscheider, 1987). However, *younger couple* oughts to use their fundings more carefully, since they have a more limited fund and they are obligated to manage their fund to support their life. Equally important, the *younger couple* has to consider the need of their future children. A rational consideration is to be conducted to make that decision so that the family's preference is on a cheaper priced property. The purchased residence would create a *capital gain* as a stepping stone towards moving into a better housing (Haavio & Kauppi, 2011). Furthermore, *younger couple* owns the chance to buy a property for investment, granted that their need for housing is already fulfilled.

In the *family cycle* of a *midlife household* (a family that possess a residential house), the purpose of purchasing a property tends to lean to the reason of investment rather than consumption. Their extra funding is allocated as an investment, with the purpose of developing and maintaining their wealth (Dasso & Ring, 1989). Extra funding enables a family to make an irrational decision, due to the psychological bias that is involved in the decision-making process. This research aims to test the difference between rational and irrational factors in *younger couple* and *midlife household* in making the decision of property consumption as well as investment. Further research will be done on the different factors in both *younger couple* and *midlife household*.

LITERATURE REVIEW

Dual Motives

The *dual motives* theory explains what underlies the decision of property purchase which is based upon the purpose of consumption and investment. Property purchase is aimed to fulfil one's need, yet the rest would be used for investment (Arrondel et al., 2010). The decision of consumption and investment could be observed from the initial goal of purchase, and not from the number of property that is purchased. Consumption signifies that the acquisition of property is to be used as a personal housing. The first property purchase aims

to fulfil one's need, though the buyer might also consider investing (Malpezzi & Watcher, 2012). On the other hand, investment is an act of spending to secure profit in the future. Although the investor would receive a profit, the investor would also bear the risk of uncertainty – for a higher risk would be compensated by a higher *return*. Property investor is responsible for taking care of the property and bearing the risk that might occur. In return, profit will be received from the rent money and *capital gain* (Dasso & Ring, 1989)

Behavioural Real Estate

Behavioural Real Estate is the application of *behavioural economics* in the field of property. *Behavioural economics* itself is the application of economic science in more realistic terms regarding preference, rationality, and decision making (Gibb, 2012). It combines economic science with social science, especially in psychology in the property area (Salman & Zwinkels, 2017). The research regarding *behavioural real estate* occurred with the *weak form efficient* property market condition. In this condition, information and fundamental variable are unable to define the price market accurately (Case & Shiller, 1990). Shiller (2005) suggests that investor applies *Rational Optimizing* (considering the profit rationally) and *Utility Maximization* (allocating the funding rationally for a maximum profit). *Utility Maximization* uses the assumption of *Efficient Market Hypothesis* (EMH), in which information can define the price entirely. However, EMH conflicts with the *weak form efficient* property market, which means that the amount would not be accurately defined. Fundamental inaccuracy in deciding property price could be explained through *a behavioural real estate*. *Behavioural* approach is divided into micro and macro approach. While *macro-oriented* approach is related to the behaviour that affects one's transaction with the market, *micro-oriented* approach refers to one's behaviour and their motivation (Ratchatakulpat, Miller, dan Marchant, 2009).

One of the important aspects of a buyer's behaviour is their making a decision such as purchasing a property. Koklic & Vida (2009) stated that the decision of purchasing is affected by both rational and irrational factor, because of the existence of two kinds of needs that each possess: *utilitarian* and *hedonic* needs. *Utilitarian* is when a consumer is pondering objectively upon a product based on its value and utility. On the other hand, *hedonic* is when the consumers satisfy their needs subjectively and for the sake of *Pleasure* (Gibler & Nelson, 1998). *Utilitarian* needs are influenced by rational factor, and *hedonic* needs are affected by irrational factor. Furthermore, a rational decision is a form of a *reflective mind* that consider things for a long-term, analytically, and with effort (Stanovich, 2010). Rational thinking is

different for each, for each has a different preference for a property's feature that he or she wishes for a property to have. Such thought would influence their decision on a purchase. The features include the physical condition, the environment, the location, the financial condition, and the law applied – these are the rational factors. However, for individuals who use more of their feelings, their decision making is more likely to be influenced with irrational factors (Kudryavstev *et al.*, 2012) such as psychological state, emotion, intuition, and socialisation (Suwitro & Njo, 2015) of the individual.

Rational Factor

The physical quality of property includes *immobility*, *indestructibility*, and *nonhomogeneity* (Dasso & Ring, 1989). Ratchatakulpat *et al.* (2009) described that physical property is the size of the property, number of bedrooms, presence of a garage, interior design, quality of construction material, the layout of the property, architectural style, convenience in property maintenance, number of bathrooms, and presence of a garden. Location becomes the most crucial aspect because accessibility is more important than luxury and property quality (Lan, 2011). Location shows the placement of a place in relation to other places (Fanning, Grissom, & Pearson, 1994). The indicators include an ease of access to the property, presence of other surrounding property that could reduce the property's value, the road with in front of the property, the density of the traffic around the property, distance to school, work, shopping avenues or mall (Suwitro & Njo, 2015), distance to a market, and distance to a hospital (Fernandez, Oliveira & Hochheim, 2001). The neighbourhood might create a favourable exposure or in contrast, an unfavourable one. The indicator used is the condition of the neighbourhood, the welfare of that neighbourhood, the safety, the quality of the school nearby the property, the presence of green space around the property (Suwitro & Njo, 2015), and the cleanliness of the neighbourhood (Saw & Tan, 2014). Moreover, finance is the main factor because purchasing a property requires a huge amount of fund that confines for a long-term (Koklic & Vida, 2009). Reed & Mills (2007) proves that financial factors influenced 305 of the decision made. Indicators of a financial factor include the price of the property, the amount of loan interest - both during the time of loan or in the future, the maximum amount of retrievable loan, the maximum amount of monthly loan, the payment period, and the length of time the property is offered (Ratchatakulpat *et al.*, 2009; Suwitro & Njo, 2015).

Irrational Factor

Psychology is the key to explain what causes a bias in human behaviour (Kumar & Goyal, 2015). The psychological state of a consumer and investor such as overconfidence, conservatism, familiarity heuristic, money illusion, loss aversion and herd behaviour affects the decision-making process (Beracha & Skiba, 2014; Suwito & Njo, 2015). A consumer or investor who is over-confident is assured that their profit would be bigger than the loss. When an investor or consumer has a lot of experience in property, they would have less overconfidence. When an investor or a consumer is conservative or has a slow reaction to information, this would be considered as conservatism or having a slow reaction to information. This adjustment would slowly affect the property market, and therefore the buyer who realizes this would be able to take this opportunity before the property price changes (Beracha & Skiba, 2014). *Familiarity Heuristic* is related to the pre-acquired information, which will be used as a basis for decision making. When deciding to buy, the consumer and investor would choose to buy a product that they are familiar with rather than an unfamiliar yet a profitable product (Kumar & Goyal, 2015; Beracha & Skiba, 2014). Also, *Herd Behaviour* is a behaviour that comes to light under the influence of other people. *Herd behaviour* gives a social pressure and could cause a buyer to not decide on his own (Salzman & Zwinkels, 2017). A consumer or investor is most likely to buy a property that is wanted by many people, causing the price to rocket. However, the property might not be as popular in the future (Haavio & Kauppi, 2011). *Money Illusion* is defined as a buyer's failure to evaluate an alternative because of a property's value (Salzman & Zwinkels, 2017). An investor uses the wrong reference to decide a property's value, such as the price difference that is not applied to inflation. An excellent price difference could cause an investor or consumer to predict the price increase, although it may not happen in the future. *Loss aversion* is the act of an investor or consumer not willing to attain a loss. Therefore they try to hold onto the losing property (Beracha & Skiba, 2014). Morrison and Clark (2016) stated that losing a house which has a significant meaning and clinging memory is defined as a loss. It is very natural to avoid loss. However, being too excessive could cause someone to become biased in making the decision (Salzman & Zwinkels, 2017). The loss obtained is not only materialistically, but also psychologically.

Emotion is defined as a social attachment with one's residence, developed through a feeling of security, a deep meaning, and a feeling of identity (Salzman & Zwinkels, 2017). Each has a different level of emotion depending on their feeling towards the selected property. Also, an *intuitive mind* is described as reasoning done through intuition, without

intrusion. *Reflective mind*, on the other hand, is reasoning done analytically (Stanovich, 2010). Salzman & Zwinkels (2017) define a feeling that surfaces immediately when looking at a house, then the house is chosen at first sight, as an *intuitive mind* – since the decision is spontaneous and intuitively done. Finally, socialisation is defined as making a decision that is influenced by the people around someone. Social pressure could cause someone to choose based on the majority. This decision is usually influenced by a *reference group* such as the broker, the developer, one’s friend, and family (Suwitro & Njo, 2015).

Family Life-Cycle

Family Life-cycle is the stages of a family from the beginning of marriage until retirement. Lee et al. (2002) divide *family life-cycle* according to their age, and Seo & Lim (1984) divides them according to the children's dependency. The merging of both divisions would be defined as the following:

Table 1. Stages of Family Life-Cycle

Stage	Description
<i>Younger Singles</i>	Family age of < 45 years old, unmarried and having no child
<i>Younger Couples</i>	Family age of < 45 years old, married and having no child
<i>Younger Parents</i>	Family age of < 45 years old, married with a child or children
<i>Midlife Parents</i>	Family age of 45 – 64 years old, married with a dependent child or children
<i>Midlife Household (pre-retired or retired)</i>	Family age of 45 – 64 years old, married with an independent child or children
<i>Older Parents</i>	Family age of > 64 years old, married with a dependent child or children
<i>Older Household (pre-retired or retired)</i>	Family age of > 64 years old, married with an independent child or children

Source: Lee et al. (2000)

According to the *Family Life-Cycle* division above, this research would see if there is any difference between rational factor and irrational factor in making dual motives decision, focusing on *younger couples* and *midlife household*. The stage of *younger couples* is the family that is recently married, mostly not having their own house yet. Therefore, any decision to purchase of property is for consumption (Lee et al., 2000). Nevertheless, the purchase may also be motivated with the idea of investment, when the couple has already owned a residential house. The decision of consumption is based upon the utility of the property, and the decision of investment is based upon the property’s value. Some factors that are considered rationally is the physical condition of the property, the location of the property,

the property's neighbourhood, and one's financial condition. Furthermore, psychological factors also play a part in the process of making the decision and therefore can cause the decision to be biased.

For *younger couple*, the physical factor of the property is given more attention since a house is to be lived in for a long time. The family would also consider a house that could be improved or upgraded in the future for the sake of the children. First, the *younger couple* would find a property where it is more comfortable and nearer to commute to work, and also closer to public places such as the hospital, malls, and the market. A safe and clean neighbourhood is also a priority since the family is preparing the house to be ideal for raising a child (Lan, 2011). Investment motivation, however, is focused mainly on their wish to receive a capital gain. Therefore, the family would look for a property that is easier to be resold with the added value of the property. Lastly, financial factor becomes the most considered aspect by a *younger couple*, because their pay raise may not compensate the inflation of the house price (Fauzi, 2017, para.15). A limited budget drives a younger couple to make a decision carefully, because buying an overpriced property would cut down their fund for other needs (Lee *et al.*, 2000; Koklic & Vida, 2009).

Though the decision is made rationally, *younger couples* could not avoid the psychological factors. Psychological factors that differentiate dual motive is *overconfidence* and *money illusion*, emotional bond, intuition, and socialisation in making the decision. There is an emotional bond between an individual and a neighbourhood (Salzman dan Zwinkels, 2017), for the couple would wish that a neighbourhood becomes a conducive, safe, and comfortable place for their child to grow up in. Intuition, however, does not become their primary consideration in making the decision (Lee *et al.*, 2000). Socialisation factor in dual motive shows a significant difference. In a *younger couple*, they are most likely to look for information from a *reference group* because of their lack of experience (Rani, 2014). *Reference group* such as family or friends is the most trusted sources for consumers, and investors mostly trust the broker or developer.

On the other hand, a *midlife household* stage has more funding since their expense had started to reduce. Its need for housing has already been fulfilled, and its loans for the house or vehicle has already been paid off (Lee *et al.*, 2000). The excess fund owned drives the *midlife household* to irrationally makes the decision and not rationally. The motive of consumption in a *midlife household* is more unlikely, though might be possible if the new property could give the family better welfare.

The property physical need ideal for a *midlife household* is influenced by the size of the property and the ease of looking after it. Since their stage is older, their physical activity is limited, including to look after a property (Spanier, 1979). A bigger property is more unlikely to be selected because taking care of it would be troublesome. Unlike when it comes to the need for investment, the quality of the building material has to be strong enough not to be often renovated, because the primary purpose is for housing. The main consideration of the location is for the property to be near a market and a hospital. The neighbourhood is considered to having a green and clean environment, to have a better quality of life (Saw & Tan, 2014; Lan, 2011). Price is also an important factor, though with extra funding the family would not need to rely on making a house credit (Lee *et al.*, 2000).

Psychological factor also plays a part in the dual motives decision making in a *midlife household*. Behaviours that influence the decision-making process are *loss aversion*, *overconfidence*, and *herd behaviour*. Loss aversion is the fear of losing a house with a lot of memories in it (Morrison & Clark, 2016). *Overconfidence* and *herd behaviour* appears when buying a popular property and being optimistic that it would be profitable in the future. The problem is, however, that the higher the property value is, the higher the price. Also, the property popular now might not be popular in the future. Therefore, the capital gain will be harder to attain (Saw & Tan, 2014; Lee *et al.*, 2000; Haavio & Kauppi, 2011). Emotional factor that involves the feeling of security and comfort *midlife household* lives in a house (Salzman & Zwinkels, 2017). Intuition also plays as much role in making the decision, mainly based on the experience had before. Similarly, socialisation factor such as information from a *reference group*, especially closer and trustworthy family members, drives the household in making a decision (Rani, 2014). Investor, on the other hand, receive socialisation through the broker and developer. The statements above creates these hypotheses:

- H₁ : There is a difference between rational and irrational factor in the dual motive property decision making, based on the *family life-cycle*.
- H₂ : There is a difference between rational and irrational factor in the dual motive property decision making for the *Younger Couple*.
- H₃ : There is a difference between rational and irrational factor in the dual motive property decision making for the *Midlife Household*.

RESEARCH METHODOLOGY

Comparative research is applied to compare one variable or more toward two or more different samples; In this case, this research would compare the difference between rational and irrational factor toward consumption and investment decision of the group *younger couple* and *midlife household*. The population of this research is individuals residing in Surabaya, selected with *purposive sampling* with criteria as the following:

- a. *Younger couple* is married couples that has not yet any children.
- b. *Midlife household* age between 45-64, are married and having children that are no longer dependent on their parents and no longer lives with the parents.

Table 2. Empirical Indicator of the Research Variables

Variable	Empirical Indicator
Dual Motives	1 = Investment; 0 = Consumption
Rational Factor	Physical, location, neighbourhood, and financial condition
Irrational Factor	Psychological (<i>Overconfidence, Conservatism, Familiarity Heuristic, Herd Behaviour, Money Illusion, dan Loss Aversion</i>); Emotion; Intuition; Socialisation

Before starting the difference test, validity test, reliability test, normality test, and homogeneity test is put into practice to prove if the data is appropriate. After fulfilling the tests above, the difference is tested through the T Test or Mann-Whitney U test.

ANALYSIS AND DISCUSSION

Table 3 describes the background of the respondents. The table includes the monthly income, the housing status, and the number of property ever bought. This purpose is to fit the purpose of explaining the condition of property ownership of each respondent. The *younger couple* group is dominated with the goal of consumption, while *the purpose of investment* dominates midlife household. The statement agrees with the research done by Speare and Goldscheider (1987) that states how *younger couple* is more likely aiming for consumption because of their need of a house, and *midlife household* aims for investment. The average income of *younger couple* is lower than *midlife household*. 56% of the *younger couple* range between Rp. 10 – 25 million, while 66% of the *midlife household* range between Rp. 25 – 50 million. As for the housing status, 68% of the *younger couple* owns a house, and the rest either rents or stay in the parents' or relative's house. *Younger couple* that does not own a house still aims for investment, because their need for housing is fulfilled through the parent's house or renting.

Table 3. Respondent Demography

Respondent Criteria	<i>Younger Couple</i>		<i>Midlife Household</i>	
	Consumption	Investment	Consumption	Investment
Total	34	25	15	26
Monthly income				
≤ 10 million	5	1	1	3
> 10 million – 25 million	22	11	4	5
> 25 million – 50 million	5	10	10	17
> 50 million	2	3	0	1
Housing status				
Parents/Relative's House	6	3	0	0
Rent	8	2	0	0
Personal	20	20	15	26
Number of property bought				
None	13	5	0	0
1 property	20	15	13	10
2 property	0	3	0	13
3 property	1	2	2	3

Before testing the hypotheses, validity test and reliability test must be done. The result of validity test is considered as valid if the r -value $>$ r -table (0.195). The reliability test would show that the variables of physical, location, financial condition and socialisation to be reliable if it has the value of *Cronbach's Alpha* $>$ 0.60. Lastly, the neighbourhood, emotion, and psychology are proved feasible and dependable for the next test if the *Cronbach's Alpha* range between $>$ 0.40 – 0.60. The result of the normality test shows that the data is not normally distributed, and therefore *Mann-Whitney U Test* is used to test the difference (Table 4).

Table 4. Differentiating Variable in the stage of *Family Life-Cycle*

Variable	<i>All Family</i>	<i>Younger Couple</i>	<i>Midlife Household</i>
Physical	0,003 **	0,001 **	0,825
Location	0,068	0,374	0,847
Neighbourhood	0,006 **	0,051	0,139
Financial	0,547	0,094	0,739
Psychological	0,174	0,613	0,208
Emotion	0,627	0,937	0,076
Intuition	0,012 **	0,306	0,278
Socialisation	0,009 **	0,030 **	0,272

Significant ** $p < 0.05$

The respondents, according to each of their motives, show different rational factors when deciding to purchase a property. The factors includes physical and neighbourhood variables, as well as irrational factors such as intuition and socialisation. The grouping in *younger couple* shows that rational factor of physical and irrational factor of socialisation differentiate the decision between consumption and investment. In midlife household, however, there is no difference between rational factor and irrational factor when deciding to purchase with each of the respondent's motive.

The difference occurred in rational and irrational factor shows that the investor group has a higher mean value than they buyer group. The investor has a more consideration when deciding to buy a property concerning rational factor. Nevertheless, irrational factor also plays a role in influencing the psychological response of the respondents.

Table 5. Differentiating Indicators in *Dual Motives of Family Life-Cycle*

Indicators	<i>All Family</i>		<i>Younger Couple</i>	
	Consumption Mean	Investment Mean	Consumption Mean	Investment Mean
Rational Factor				
P3 (Having a garage)	2,96	3,18	3,00	3,32
P4 (Interior design of the property)	3,18	3,41	3,12	3,52
P5 (Construction material)	4,02	4,25	4,08	4,12
P6 (Layout of the property)	3,86	4,06	3,92	4,16
P7 (Architectural style)	3,31	3,63	3,20	3,64
E2 (The welfare of the area around the property)	4,35	4,51		
E3 (The view from the property)	3,04	3,39		
E4 (Security of the property's area)	4,73	4,96		
E6 (Presence of a green area near the property)	3,51	3,71		
E7 (Cleanliness of the neighbourhood)	4,65	4,73		
Irrational Factor				
I1 (At first sight, I believe that the property is the right one for me)	2,82	3,18		
I2 (I believe in my personal opinion when buying the property)	3,45	3,67		
I3 (I believe the property would give me a significant profit)	3,31	3,61		
I4 (I believe in my intuition based on my experience)	3,67	3,75		
S1 (Before purchasing, I discussed with my agent or broker)	2,78	3,10	2,68	3,16
S2 (Before purchasing, I discussed with the developer)	2,98	3,14	3,04	3,16
S3 (Before purchasing, I discussed it with a friend)	3,22	3,63	3,24	3,64
S4 (Before purchasing, I discussed with my family)	3,92	4,18	3,80	4,20

Discussion

The difference between rational and irrational factor based on the dual motive (consumption and investment) of the property in Surabaya is the physical and neighbourhood factor (rational) and intuition and socialisation factor (irrational). When a family decides to buy for consumption purpose, their primary consideration would be on the physical of the property, as well as the neighbourhood around it. The account is then adjusted with their capability of purchasing. In contrast, a family with the purpose of investment, though their main consideration is on the physical condition and neighbourhood of the property, will consider mainly on whether the property gives a good *capital gain* or extra revenue through renting it. The amount of funding and the level of riches of an individual also drives one to be irrational, since the psychological factor of intuition and socialisation may cloud over their decision-making process. Rationality dominates family with the motive of consumption – they would contemplate carefully, and they needed more time before deciding on buying a property in which they would reside. Lee et al. (2000) stated that limited funding in *younger couple* forces them to think more carefully and for a longer time before deciding. They would attain information about that property to their nearest acquaintances such as their family and friends. The information of experiences from their family and friends would strengthen their decision, and therefore the domination of considering through intuition would reduce. On the contrary, an investor would require a lot of information, especially regarding the prospect of the property in the future. That information would be acquired from the broker of a developer who has a broader knowledge about it. Experience and information about the prospect of property would drive the investor's intuition in deciding to purchase. The investor will then decide quickly, which leads to an irrational decision making.

The most important physical indicator leans toward the construction material, since both the buyer and investor desire the property to be strong and lasting for a long time. In one hand, the consumer wants a property that could be used for a long time, and on the other hand, the investor wishes that the property is strong enough that it does not need cost any renovation. Other physical indicators are interior design, the layout of the property, and the architectural style that would give added value to the investor. These, however, might be less beneficial for the buyer with a consumption motive. A buyer would prefer a house with a garage that gives a direct benefit when living in that house. Secondly, the neighbourhood indicator such as welfare, security, and cleanliness is also a significant indicator. Environmental indicators, namely the view from the house and the presence of green space in the area, does not give a direct benefit for the consumer. However, investor desires that the property has a good view

and a green space, for the property to have a higher price when rented or sold. Furthermore, *midlife household* does not show the difference between rational and irrational factor when deciding on a dual motive purchase of a property. As *midlife household* enters their retirement age, their concern for short-term purposes (consumption) and long-term purpose (investment) shows no difference. A need of housing has been fulfilled, and a house as an investment has been fulfilled too. The family no longer pursue more income to pile up their riches. They would prefer an environment where they can gather with their children, grandchildren, or friends around their house.

CONCLUSION AND SUGGESTION

Decision making in buying a property shows a difference between rational factor, namely physical and neighbourhood variables, and irrational factor, namely intuition and socialisation variables. This is caused by the existence of dual motives in property purchase. A test done on the group of *younger couple* shows that rational factor, particularly physical variable, and irrational factor, particularly socialisation variable, differentiate their decision making in the dual motive. However, the *midlife household* group shows no difference between rational and irrational factors in dual motives decision making. In the future, a control variable of age and income to be applied in the group *midlife household* is suggested. Its position as a buyer and investor is hoped to be better distinguished since the age range, and various income is not well described in this research. In general, *midlife household* group has a better financial condition than the *younger couple*, therefore making the *midlife household* group have more freedom in using their funds. Logical thinking, careful thinking, and psychological influence caused by a cognitive disability are caused by age factor would become one process when deciding on buying a property.

REFERENCE

Allon, F. (2012). *International Encyclopedia of Housing and Home* (Vol. 2). (Smith, S.J.; Elsinga, M.; Eng, O.S.; O'Mahony, L.F.; Wachter, S.) Elsevier Ltd.

Arrondel, L., Badenes, N. and Spadaro, A. (2010). Consumption and investment motives in housing wealth accumulation of Spanish households. *Social Science Electronic Publishing, Inc*, 1-24. Retrieved from: <http://dx.doi.org/10.2139/ssrn.1597126>

Beracha, E., and Skiba, H. (2014). *Real Estate Investment Decision – Making in Behavioural Finance*, pp. 559-584. Edited by Baker, H.K. and Ricciardi, V. in *Investor Behaviour: The Psychology of Financial Planning and Investing*. John Wiley and Sons, Inc. New Jersey.

Case, K. E. and Shiller, R. J. (1990). Forecasting prices and excess returns in the housing market. *American Real Estate and Urban Economic Association Journal*, 18(3), 253-273.

Dasso, J., and Ring, A. A. (1989). *Real Estate Principles and Practices* (11th ed.). New Jersey: Prentice Hall, Inc.

Dornbusch, R. and Fisher, S. (1994). *Macroeconomics* (6th ed). New York: McGraw-Hill.

Fama, E. F. (1970). Efficient capital markets: A review of theory and empirical work. *The Journal of Finance*, 25(2), 383-417.

Fanning, S. F., Grissom, T. V., and Pearson, T. D. (1994). *Market Analysis For Valuation Appraisal*. Chicago, Illinois: Appraisal Institute.

Fauzi, Y. (2017, February 3). *Gaji Cuma Naik Tipis, Generasi Milenial Sulit Beli Rumah*. Retrieved October 12, 2017, from CNN Indonesia: <https://www.cnnindonesia.com/ekonomi/20170203081851-92191002/gaji-cuma-naik-tipis-generasi-milenial-sulit-beli-rumah/>

Fernandez, J. A., Oliveira, R. D., and Hochheim, N. (2001). Application of family life cycle concept in determining potential segment for housing projects. *Property Management*, 20(5), 312-325.

Gibb, K. (2012). *International Encyclopedia of Housing and Home* (Vol. 1). (Smith, S.J.; Elsinga, M.; Eng, O.S.; O'Mahony, L.F.; Wachter, S.) Elsevier Ltd.

Gibler, K. M., and Nelson, S. L. (1998). *Consumer behaviour applications to real estate*. American Real Estate Society Meeting, April.

Haavio, M. and Kauppi, H. (2011). *Owner-occupied housing as an investment, regional house price cycles, and residential sorting* (pp.1-84). Discussion Papers. Bank of Finland Research. Retrieved from <http://www.suomenpankki.fi/en>.

Koklic, M.K. and Vida, I. (2009). A strategic household purchase: Consumer house buying behaviour. *Managing Global Transition*, 7(1), 75-96.

Kudryavtsev, A., Cohen, G., and Hon-Snir, S. (2012). Rational or Intuitive: Are Behavioural Biases Correlated Across Stock Market Investors? *Contemporary Economics*, 7(2), 31-53.

Kumar, S. and Goyal, N. (2015). Behavioural biases in investment decision making – a systematic literature review. *Qualitative Research in Financial Markets*, 7(1), 88-108.

Lan, H. T. H. (2011). *A study on housing preference of young households using stated-preference approach*. (Master Thesis, KTH Architecture and the Build Environment, Department of Real Estate and Construction Management).

Lee, S., Park, M. H., and Montalto, C. P. (2000). The Effect of Family Life Cycle and Financial Management Practices on Household Saving Patterns. *Journal of Korean Home Economics Association English Edition*, 1(1), 79-93.

Malpezzi, S., and Wachter, S. (2012). *International Encyclopedia of Housing and Home* (Vol. 3). (Smith, S.J.; Elsinga, M.; Eng, O.S.; O'Mahony, L.F.; Wachter, S.) Elsevier Ltd.

Morrison, P. S., and Clark, W. A. (2016). Loss Aversion and Duration of Residence. *Demographic Research*, 35(36), 1079-1100.

Preston, V., and Taylor, S. M. (1981). The Family Life Cycle, Leisure Activities, and Residential Area Evaluation. *The Canadian Geographer*, 25(1), 46-59. Retrieved from: <https://doi.org/10.1111/j.1541-0064.1981.tb01248.x>

Rani, P. (2014). Factors influencing consumer behaviour. *International Journal of Current Research and Academic Review*, 2(9), 52-61.

Ratchatakulpat, T., Miller, P., and Marchant, T. (2009). Residential real estate purchase decisions in Australia: is it more than location? *International Real Estate Review*, 12(3), 237-294.

Reed, R., and Mills, A. (2007). Identifying the drivers behind housing preferences of first-time owners. *Property Management*, 25(3), 225-241.

Saw, L. S., and Tan, T. H. (2014). Factors Affecting the Purchase Decision of Investors in the Residential Property Market in Malaysia. *Journal of Surveying, Construction and Property*, 5(2), 1-13.

Shiller, R. J. (2005). Behavioural Economics and Institutional Innovation. *Southern Economic Journal*, 72(2), 269-283.

Speare, A., and Goldscheider, F. K. (1987). Effects of Marital Status Change on Residential Mobility. *Journal of Marriage and Family*, 49(2), 455-464.

Stanovich, K. (2010). *Rationality and the Reflective Mind*. Oxford University Press, 15(33). Retrieved from <http://metapsychology.mentalhelp.net/poc/view.doc.php?type=book&id=6194>

Suwitro, A., and Njo, A. (2015). The Rational and Irrational Factors Underlying Property Buying Behaviour. *Journal of Economics and Behavioural Studies*, 7(2), 183-191.

Salzman, D., and Zwinkels, R. C. (2017). Behavioural Real Estate. *Journal of Real Estate Literature*, 25(1), 77-106. DOI <https://doi.org/10.5555/0927-7544.25.1.77>.

Seo, B. S. and Lim, H. K. (1984). A study on the change of household-economy incidental to the family life cycle. *Journal of Korean Home Management Association*, 2(1), 35-55.

Spanier, G.B. (1979). The measurement of marital quality. *Journal of Sex and Marital Therapy*, 5(3), 288-300.

ORIGINALITY REPORT

1 %	1 %	1 %	0 %
SIMILARITY INDEX	INTERNET SOURCES	PUBLICATIONS	STUDENT PAPERS

PRIMARY SOURCES

1	Anastasia Njo, Narsa I. Made, Andry Irwanto. "Dual process of dual motives in real estate market Indonesia", International Journal of Housing Markets and Analysis, 2018 Publication	1 %
----------	---	------------

Exclude quotes On
Exclude bibliography On

Exclude matches < 1%