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Research paper

The Decision Process of Purchasing Green Occupancy; an Investigation of Consumer Perceptions and Preferences

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Abstract

Every human being needs a house that is not only for shelter and family activity as well as a means of investment, but also required to accommodate the needs and desires of the owner such as, strategic location, good and sturdy building, and comfortable environment. In the development of residential choosing eco-friendly concept, PT. Ciputra Residence is one of the developers who are developing real estate and commercial area based on environmentally friendly. Population and household growth and supported by government regulations on residential concept that offer "green" building, will increase consumer perception and preference towards decent and comfortable occupancy. The concept of eco-friendly development can be a solution to understand the environment as a whole. Buildings built with the concept of environmentally friendly turns out to have more high selling value. This further proves to the people's awareness of the environment. Based on these problems, this study aims to determine the effect of consumer perceptions and preferences on the process of purchasing decision of green product (study at PT Ciputra Housing Citra Raya Tangerang).
This research method is quantitative research with kind of causal description. The measurement scale used is Likert scale. The population of this research is the resident of Citra Raya Tangerang housing. The sampling technique used is Non Probability Sampling with Incidental Sampling type. Data analysis method used is Structural Equation Modeling (SEM).
Based on the result of research can be concluded that consumer perception in good category, consumer preference in good category, decision process of purchase of green product occupancy in good category, and from result of SEM analysis that environment influence variable have significant influence to decision process of purchase of green product occupancy.

Keywords: *Customer Preferences, Perception, Purchase Decision Process*

1. Introduction

Industry lately is growing rapidly. This of course affects the environment and humans. A rapidly growing industry has an impact on environmental concerns, so the destruction of the environment affects the quality of human life. Examples of environmental destruction such as the illegal conversion of land for housing construction, garbage disposal and household waste into the river basin cause flooding. Development of environmentally insecure housing not only destroys the environment or decreases the quality of human life but also decreases the quality of the social environment. Every man needs a home for shelter and as a gathering place and the ongoing activities of the family as well as a means of investment. The function of the house has also changed, from what was originally just a shelter, but should also be a decent place to live and a house not enough just to take shelter but also required to accommodate the needs and desires of the owner such as, strategic location, good building and sturdy, and comfortable environment.
In the development of shelter that chose the concept of eco-friendly in this case PT Ciputra Residence is one of the developers who actually develop housing and commercial area-based environmentally friendly. Eco-friendly is a concept that does not pose a danger to the environment or is safe for the earth. Something that is meant is often aimed at various products, especially those that contribute to preserving resources such as energy and water. The product also minimizes damage or pollution in air, land, and water[1,20]. The concept of eco-friendly development can be a solution as a gateway to understand the environment as a whole. One thing to realize is that the construction of a dwelling house produces the largest carbon dioxide, whose impact is seen directly in the case of global warming. Through the concept of eco-friendly residence is expected to contribute directly in curbing the rate of global warming. Not only there, water and energy savings and energy use become the main points that continue to be discussed in an eco-friendly home concept, so the problem of green environmental sustainability can be resolved properly. Buildings built with the concept of environmentally friendly it has more high selling value. This further proves to the people's awareness of the environment. Therefore, education about the availability of eco-friendly homes is felt increasingly important for the purpose of reducing the risk of global warming and climate exchange. In establishing a building many things to be considered, among them are aspects of materials, the availability of green space, to installation of water and electricity are optimal but still efficient.
Occupancy in a region either urban or urban buffer areas such as Tangerang area, is a buffer zone (buffer zone). The buffer zone is the area surrounding the protected area that serves to limit human activities within the protected forest so as not to damage the ecosystem within the protected forest area. Communities in buffer zones play a very important role for forest conservation, especially in reducing population pressure on the region by integrating conservation principles with the economy of the surrounding community[2].

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Population growth and household growth and supported by government regulations on residential concepts that offer eco-friendly "green" buildings, will add consumer perceptions and preferences to decent and comfortable dwellings. Based on the above background explanation, the researcher interested in taking the title in this research is "The Influence of Perception and Consumer Preference To The Purchasing Residential Green Product Decision Process (Study At PT Ciputra Perumahan Citra Raya Tangerang).
Formulate the problem to be discussed in this research that is: (a). how is consumer perception of decision process of purchase of green product occupancy in PT Ciputra housing Citra Raya Tangerang? (b). how is the consumer preference to the process of purchasing decision of green product in PT Ciputra housing Citra Raya Tangerang? (c). how the decision process of purchasing green product occupancy in PT Ciputra housing Citra Raya Tangerang? (d). How big is the influence between consumers' perceptions and preferences on the green product residential purchase decision process at PT Ciputra housing Citra Raya Tangerang?

2. Literature Review

Green marketing is the marketing of a product that is assumed to be an environmentally friendly product. Therefore, green marketing consists of various activities including product modification, changes in the production process, change of packaging, even changes in promotion [3,4]. Consumers will show their behavior after a perception of what decisions will be taken in buying a product. Perception is a process by which one chooses, organizes, and interprets received stimuli into a meaningful and complete picture of the world[5,6]. In a study, the perception of the marketing mix is, among others[7].

[1]. Perception of location; Location is a place where the occupancy is in a clean, pollution-free, flood-free location and close to public facilities.
[2]. Perception of the product; Consumer perceptions of the product will affect the intensity of buying because most of the behavior is affected perceptions that depends on how the individual responds to something.
[3]. Perception of price; Price is the amount of money that must be paid by the customer to obtain the product.
[4]. Perceptions of promotion; Marketing communications are the means by which companies attempt to inform, persuade and remind consumers directly or indirectly about the products and brands they sell.

Consumer preference is a consumer's attitude toward a choice of product brand formed through evaluation of various brands in the various options available[8]. Consumer preferences in home buying interest are determined by the proximity of the location to the facilities around the housing, the availability of fencing, security facilities, the form of house payments, the availability of water facilities, the form of housing streets, and the model of the house[9]. Consumer preferences factors that influence the process of purchasing decision making include social factors, payment methods and environmental influences[10];

[1]. **Social factors**. Consumer preferences of social factors in this study is how people around consumers affect consumers to the purchasing decision process, namely by providing information to consumers about the dwelling. The information collected comes from family and information from friends, work environment, and others.
[2]. **Payment method.** Are ways of making payments. The consumer's preference for payment methods is to see the payment facilities provided by the developer, the terms of payment and the interest rate offered by the dwelling manager.
[3]. **The influence of the environment.** Environment is the most important and fundamental part of human life, so that the environment in the residential area can be a preference for consumers on the process of purchasing decision. In this research, consumer preference toward environmental influence is the availability of beautiful environment and urban environment.

Theory of decision process of purchase of green product occupancy is related to purchasing decision process done by consumer, the researcher want to know whether the consumer will seek as much information related to green residential product, whether the consumer will do green product purchase within one to two years, and whether consumers would recommend to others to buy green residential products [10].

3. Methodology

This research uses quantitative research method. Quantitative research is a research method based on the philosophy of positivism, used to examine the population or a particular sample, data collection using research instruments, quantitative or statistical data analysis, with the aim to test the hypothesis that has been established [11] . The type of this research is descriptive and causal research. Descriptive research is a study that describes the characteristics of objects, people, groups, organizations, or the environment[12]. While causal research is a research that explains the causal relationship between independent variables (variables that affect) and the dependent variable (variables that are affected)[13]. The variable is an attribute or the nature or value of the person, object or activity that has certain variations set by the researcher to be studied and then drawn the conclusion[14]. In this study the variables studied are consumer perceptions and consumer preferences as an independent variable and the process of purchasing decision of green product as a dependent variable.

The instrument scale used in this research is Likert scale. Likert scale is used to develop the instruments used to measure attitudes, perceptions, and opinions of a person or group of people on the potential and problems of an object, the design of a product, the process of making products and products that have been developed or created[11]. In this study, the population used is the resident housing Citra Raya Tangerang. As is known the population of residents Citra Raya Tangerang now exceeds 65,000 inhabitants. In this research, the sampling technique used is nonprobability sampling with incidental sampling type. Based on the results of the sample calculation using the Bernoulli method with error rate used by 10%, obtained the minimum sample of 96.04 respondents and rounded up to 100 respondents.

4. Result and Discussion

From the results of the study that of 100 respondents known the number of respondent's female sex more than male gender. The percentage of the comparison was women by 52% and men 48%. Where the respondent female sex as many as 52 people and male respondents as many as 48 people. According to the largest home brokering agency, the percentage between women and men in buying a home in reaches 51:49. This is because men choose to buy a house after marriage, while women buy a home while still single and other things are caused by the purchase of a home is also encouraged by a partner who is on behalf of the woman when buying a second home[13].
Of the 100 respondents studied, it was found that the age of 25 years to 34 years was 24% or 24 people, 35 years old to 44 years old 36% or 36 persons, age 45 years to 54 years of 27% or 27 people, ≥55 years of 13% or 13 people. This shows that the majority of respondents who buy housing in PT Ciputra Citra Raya Tangerang with age range 35 years to 44 years. This is in accordance with previous research which states that the age range of home purchase with the concept of environmentally friendly is 35 years to 44 years[10]. From 100 respondents, the number of married respondents is more than unmarried. The percentage of comparison is married by 86% and unmarried at 14%. Where

respondents who have married as many as 86 people and unmarried respondents as many as 14 people. This is because married couples need to consider where they live. Some couples will stay with family and other couples choose to live alone. The house is a place where we will return after a day of activity, a place where you rest comfortably. And those who are married also need a comfortable and safe home to live with their families or loved ones[16].

From 100 respondents, it is known that the number of respondents who have the number of core family members 2-4 people more than the number of members of the core family ≥5 people. The percentage of comparison is that has the number of family members 2-4 people core of 61% and who have the number of family members ≥5 people core by 39%. Where the respondents who have the number of family members of the core 2-4 people as many as 61 people and respondents who have the number of members of the core family ≥5 people as many as 39 people. The number of nuclear families consisting of husbands, wives, and children. This is because the government through the National Family Planning and Family Planning Board recommends that each family has only two children[17]. From 100 respondents, 11 respondents or 11% of Senior High School, 12 respondents or 12% have Diploma degree, 53 respondents or 53% have Bachelor degree, 21 respondents or 21% have master's degree and 3 respondents or 3% have other education. This shows that the majority of respondents who buy housing in PT Ciputra Citra Raya Tangerang are respondents who have undergraduate education. This is similar to that based on previous research which states that the characteristics of respondents based on education are dominated by the last undergraduate educated society[10,21].

From 100 respondents it is known that the number of respondents with job as private employee is more that is 31 respondents. Then the entrepreneur is 25 respondents, then there are employees of state-owned enterprises with 10 respondents, civil servants with 18 respondents and for other categories there are 16 respondents. Similar to previous research where private employees are more dominant[18,20]. This is because private companies have a higher salary because you are free to negotiate salaries according to performance compared to government employees who have been established by the government.

Of the 100 respondents surveyed, it was found that monthly expenditure of Rp 1,000,000 to Rp 2,500,000 was 2% or 2 persons, Rp 2,500,001 to Rp 4,500,000 by 8% or 8 persons, Rp 4,500. 001 s / d Rp 6,500,000 for 18% or 18 people, monthly expenditure is more than Rp 6,500,000 of 72% or 72 people. This shows that the majority of respondents who buy housing in PT Ciputra Citra Raya Tangerang have monthly expenditure more than Rp 6,500,000. Because the residents of Citra Raya Tangerang housing care about healthy lifestyles and the development of green property concept[19,21]. Out of 100 respondents, 32 respondents or 32% have activity in Tangerang Regency, 22 respondents or 22% in Tangerang City, 17 respondents or 17% in South Tangerang, 21 respondents or 21% working in DKI Jakarta, for other categories have response responses as much as 8 respondents or 8%. It shows that the majority of respondents who buy housing in PT Ciputra Citra Raya Tangerang is the activity / work in the area of Tangerang Regency.

Based on the results of research and descriptive analysis as a whole, consumer perception variables fall into either category with a total score of 4,953 or or equal to 76.2%. This indicates that consumer perception which includes attribute of marketing mix can influence consumer in determining decision process of purchasing green product occupancy. Based on the results of research and descriptive analysis in the overall variable of consumer preference entered in either category with total score 3,456 or equal to 76,8%. This shows that consumer preferences that include social factors, payment methods and environmental pengeruh can affect consumers in determining the process of purchasing decisions of green product occupancy.

Based on the results of the research and descriptive analysis in total, the variable of decision process of purchase of green product occupancy entered into good category with total score 1,177 or equal to 78,47%. Consumers consider making purchases against such dwellings by seeking as much information as it relates to all factors in their perceptions and preferences. Then, purchasing occupancy one to two years for marketers can be used as a benchmark to predict whether consumers will make a purchase within the next two years. For consumers who have inhabited the housing of Citra Raya Tangerang, then marketers can provide more detailed information about investing in Citra Raya Tangerang housing so as to provide understanding as well as increasing interest in consumers of the dwelling.

Table 1. R-Square Value

Variable	R-Square
Consumer Perceptions	0.242
Consumer Preferences	0.053
Decision Making Process of Green Product Shelter	0.176

Based on Table 1, the value of R-square for consumer perception variable is 0.242 which means that variation of consumer perception can be explained by construct variable of location, product, price, and promotion equal to 24.2% while the rest that is equal to 75.8% influenced by other variable not found in research models such as house quality, physical house, durability, reliability, and compliance with specifications. Based on Table 1, the variable of consumer preference generated R-square is 0.053, it means that variation of consumer preference can be explained by construct variable of social factor, payment method and environmental influence of 5.3% while the rest is 94.7% influenced by other variables not contained in research model such as location proximity variable with facility around housing, availability of housing fence, form of residential road, and budget. Based on Table 1, the variable purchasing decision process produced R-square of 0.176, it means that the variation of purchasing decision process can be explained by construct variables consumer perception and consumer preferences of 17.6% while the rest is 82.4% influenced by other variables not contained in the model research such as lifestyle variables, motivation, income level, information development, improvement of economic level and knowledge.

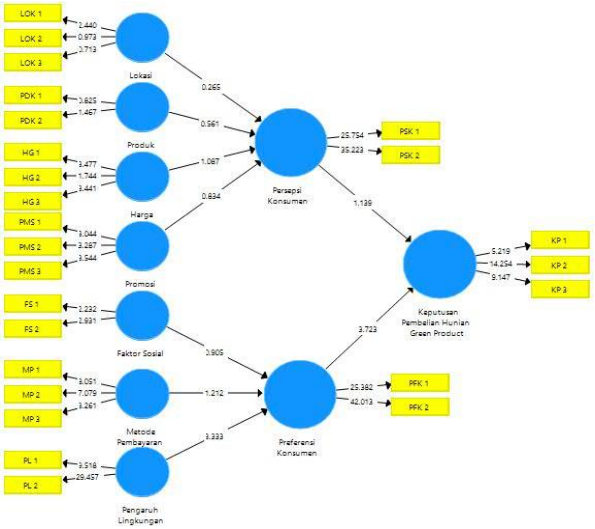


Figure 1. Display bootstrapping output

Based on Figure 1, the result of SEM analysis has been done, can be seen from hypothesis test result from consumer perception side, from four structural variables (location, product, price and promotion) analyzed by PLS method, from consumer perception variable do not influence purchasing decision process residential green product. This is because the four structural variables (location, product, price and promotion) have no significant effect. Based on Figure 2 SEM analysis results have been done, can be seen from the results of hypothesis testing from the side of consumer prefer-

ences, from three structural variables (social factors, payment methods and environmental influences) are analyzed using PLS method, that of consumer preference variables that influence decision process purchase of green product residential, among others, environmental influences. This is because the three structural variables that influence significantly are the environmental influences with the value of to (t-statistic) of 3.3326> the value of tα (t-table) of 1.661.

5. Conclusion

Based on the results of research and SEM analysis that has been done about the influence of consumer perceptions and preferences on the process of purchasing decision of green product (Study at PT Ciputra Perumahan Citra Raya Tangerang), can be drawn some conclusions that are expected to give problems about which formulated in this research is as follows :

[1]. Consumer perceptions that include attributes of marketing mix in the eyes of respondents as a whole are in good category. This indicates that consumer perception which includes attribute of marketing mix can influence consumer in determining decision process of purchasing green product occupancy. This is because buying a house in Citra Raya Tangerang shows social status and shows success, prestige, and wealth.

[2]. Consumer preferences consisting of social factors, payment methods, and environmental influences in the eyes of respondents as a whole are in either category. This shows that consumer preferences consisting of social factors, payment methods and environmental influences can affect the process of purchasing decision of green product purchase. This is caused by the design of the new modern tropical house and modern minimalist. Where consumers collect residential information in Citra Raya Housing Tangerang sourced from family and information from friends, work environment and health experts. Then consumer preferences to the method of payment is the payment facilities provided by the development varies, the payment period that meets the consumer's ability, and the interest rate given the development of the pawn. And in terms of environmental environment Citra Raya Tangerang has a beautiful environment and healthy.

[3]. Decision process of purchasing green product occupancy in the eyes of respondents as a whole is in good category. This is because consumers are considering making a purchase of the dwelling by finding as much information as it relates to all factors in their perceptions and preferences. Then, purchasing occupancy one to two years for marketers can be used as a benchmark to predict whether consumers will make a purchase within the next two years.

[4]. Based on the results of SEM analysis that has been done using the PLS method can be seen from the calculation shows that consumer perceptions of the four structural variables (location, product, price and promotion) all have no significant effect on the process of purchasing decision of green product purchase. Then consumer preference from three strktural variables (social factor, payment method and environmental influence) which have significant effect to decision process of purchase of green product occupancy are environmental influences.

So the conclusion of this study is the variable of environmental influence has a significant influence on the process of purchasing decision of green product. While location, product, price, promotion, social factor and payment method variables do not significantly influence.

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