

Housing preferences of young adults in Indonesia: housing attributes and consequences

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Abstract. Nowadays, the housing demand of young adults in Indonesia is important issues for the sustainable development of the market. Facing differences of life phases, such as marriage, leaving home after graduation, and new job positioning, young adults become the main segment facing constant housing choice decisions in the housing market. In their particular phase of life, young adults have distinct preferences for housing attributes which bring a great influence on their lives in the future. Data was gathered from a survey questionnaire that was answered by 180 young adults in Indonesia, ranging from age 22-33 years. The findings suggest that the green area and view, location, simplicity, home design, and accessibility are the significant parts as housing attributes for young adults' housing preferences in Indonesia. The effect of these attributes has many consequences such as security, personalization, mood/ambiance, maintenance, interaction, image, flexibility, environmental, economy, durability, convenience, comfort, and circulation. The biggest group of young adults who prefer comfort as their wanted consequences tend to have high preferences on housing attributes of the green area and view, and simplicity.

1. Introduction

In 2017, the level of housing needs for Indonesian people considered quite high. These needs drive and increase housing demand from year to year. According to Minister of Public Works and Housing, Basuki Hadimuljono, there are an increasing number of residential developments in 2015 and 2016. It is possible that the number of residential development in 2017 is higher because there are still many demands that have not been fulfilled yet [1].

Currently, the housing demands in Indonesia for young adults is important for the sustainability of housing market. In addition to that, the residential demand for young adults is quite large. Other fact mentions that the young families owned the status of home ownership in 12 major cities. A total of 27.5% young adults has their own homes after entering the age of marriage or after having job positioning [2].

Entering a different phase of life, such as leaving home after graduation, the status of marriage, and having a new position at work, young adults become the main part of the market in the decision process in choosing houses [3]. These choices are assumed to reflect preferences [4]. Preferences for housing attributes are adjusted to the desired benefits of each young adult. The desired benefit of housing



attribute is also called a consequence. Preference of attributes and consequences have a big role to decide their lives in the future.

The preference of attributes and consequences are described further in The Means End Chain (MEC) Theory by Gutman [5]. He argued, the goods are defined by the set of attributes. These attributes will have consequences when the goods are used. Consequences are important based on their ability to satisfy personal motivations and goals of people. A consequence is the result of a person's behavior, either directly or indirectly. Consequences can be desirable (benefits) or undesirable [5].

Moreover, the original MEC model [5] is based on four assumptions. Gutman assumes that: decision processes of the people are influenced by objectives and values; the complexities of choice are based on the grouping of the enormous diversity of goods; every behavior of consumers usually generate consequences; and the last, the consumers tend to realize the association between particular consequences and particular behaviors [5][6][7][8].

The linkage between attributes, consequences, and values in MEC model can be seen in Figure 1:

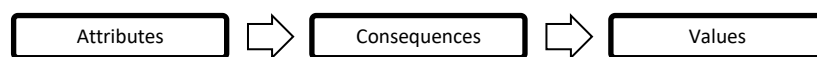


Figure 1. Structure of MEC by Gutman (1982)

This paper is a part of an ongoing thesis research. It will describe the first phase of the research, which is qualitative exploration. The qualitative research aims to identify the preference attributes and consequences of young adults in housing choice. This study is supposed to contribute to the understanding of the housing attributes and consequences of young adults in house choosing process. Housing attributes and consequences obtained are also expected to be useful for planners, as well as to developers as the consideration in the housing design based on certain markets.

2. Methods

This study used qualitative research method [9] with explorative research category [10]. This study aims to explore the preference of young adults. In this case, is young adults residing in Indonesia, in choosing the housing attributes and consequences.

2.1. Data Collection Method

The method used in this research through *Grounded Theory* approach [11]. Data collected through an online questionnaire containing open-ended questions. Open-ended question aims to explore the preferences and consequences of what young adults feel and think about the housing attributes [9].

Data collection by an online questionnaire was distributed on October 3-21, 2016. Data obtained 180 respondents aged 22-33 years old, 81 male respondents (45%) and 99 female respondents (55%). Also, 81.2% or 147 respondents recorded do not have their own homes, and as many as 18.8% or 33 respondents already have their own homes. While their status was 73.9% unmarried or as many as 133 respondents, 12.8% of the married respondents have not had children or as many as 23 respondents, and 13.3% are married and have children, or as many as 24 respondents. At the highest income level of the respondents obtained from the income of IDR 0-2,000,000, which is 62 respondents (34.4%), followed by income IDR 4,000,000-8,000,000 which is 48 respondents (26.7%), then income IDR 2,000,000-4,000,000 as many as 45 respondents (25%), then income IDR 8,000,000-16,000,000 as many as 20 respondents (11.1%), income that is above IDR 32,000,000 as many as 4 respondents (2.2%), and last IDR 16,000,000-32,000,000 as much as 1 respondent (0.6%).

2.2. Data Analysis Method

We analyzed qualitative data with content analysis. In this research, there are 3 phases of content analysis that are open coding, axial coding and selective coding [11]. Here are three steps:

- Open coding phase, which is the phase of identifying the keywords obtained from respondent's answers to the preference of housing attributes and consequences.
- Axial coding phase is to create categories of keywords obtained from previous phases. To reduce the possibility of being able to categorize. Categorization can be done together with others such as with friends.
- Selective coding phase, which describes the relationship between categories that have proximity. The relationship between these categories is done by correspondence analysis.

3. Finding and Discussion

3.1. Housing Attributes

In the content analysis phase, open coding was done by identifying the keywords of the text data about housing attribute. From the result of open coding about the housing attribute, there are 12 categories that are identified with total frequency as much as 337 (Figure 2). There are "simplicity", "spaciousness", "quality of room", "green area and view", "infrastructure", "space requirement", "home design", "residential type", "location type", "accessibility", "proximity to big family", and "location". The most common keywords are the green area and view (f=56), location (f=54), simplicity (f=43), home design (f=34), and accessibility (f=27).

In the content analysis phase, open coding is identified by the emergence of some keywords from the data obtained. The example is in "green area and view" categories, the "green area and view" is the highest frequency for housing attribute (f=56) desired by young adults. The keywords of the "green area and view" have sentences that are represented, there is "a yard", "a garden", there are "so many trees and plants", there is "a pool", and there is "a saung/gazebo".

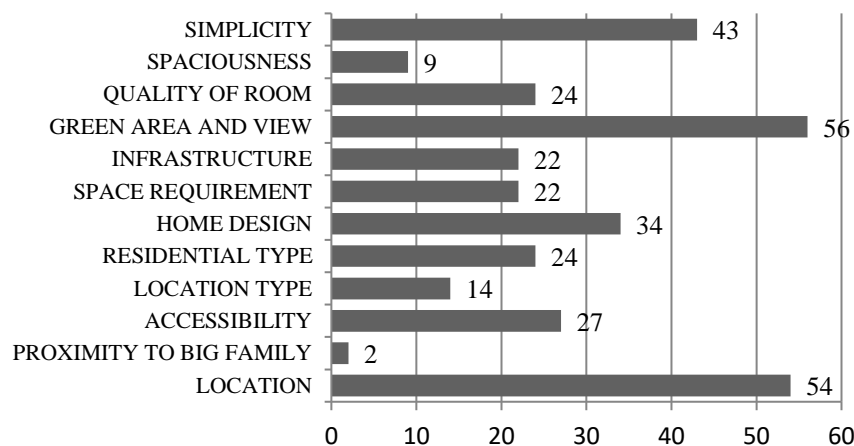


Figure 2. Distribution analysis results of the housing attributes.

Here are some examples of respondent's answers that are represented by green area and view (f=56) attribute keywords:

Respondents 7: "Large yard, natural view orientation, safe environment and humanist. The reason for this can be as a place to play children and exercise, and air circulation can flow well."

Respondents 35: "I want a house that has a yard, good air circulation, the house is not small and not too large. The reason the house should have a yard is to play the kids and gardening, so the air circulation is not stuffy, and the spacious room is enough for a small family."

Respondents 38: "Houses that have a large yard while for the building is not too large. I love gardening so when at home, I am easy to set up my home yard as I wish. While the main reason for choosing a small house because I have not married so I think a small house suitable for my personal space needs.

From the data obtained, the reasons for the selection of housing attributes can also be reprocessed and categorized into the keyword consequences. Consequences can also be referred to as benefits derived from the presence of housing attributes.

Data processing as above applies to all other keywords. Other categories such as location (f = 54) have represented keywords such as "strategic locations", "proximity to workplace", "proximity to place of worship", "proximity to schools", "proximity public facilities", "proximity to health facilities/hospital", "proximity to the market". The simplicity category (f = 43) has keywords that are represented as "not very large", "uncomplicated/simple homes", "mediocre homes", "habitable", and "patch up". While the home design category (f = 34) represents the keywords of various home designs that young adults like, such as "minimalist", "classical", "tropical architecture", "traditional modern", "javanese limas rooftop", "green design", "indo-europeans", "industrialist", and "futuristic". The category of accessibility (f = 26) has keywords represented by "easy access", "easy and low-cost transportation", and "free from traffic jam". The categories and keywords represented can be viewed in table 1:

Table 1. Example axial coding of housing attribute

No.	Keyword	Category
1.	There are have: – A yard – A garden – So many trees and plants – A pool – A saung/gazebo	Green area and view
2.	– Strategic locations – Proximity to workplace – Proximity to places of worship – Proximity to schools – Proximity public facilities – Proximity to health facilities/ hospital – Proximity to the market	Location
3.	– Not very large – Uncomplicated/simple homes – Mediocre homes – Habitable – Patch up	Simplicity
4.	– Minimalist – Classical – Tropical architecture – Traditional modern – Javanese limas rooftop – Green design – Indo-europeans model – Industrialist – Futuristic – etc.	Home design
5.	– Easy access – Easy and low-cost transportation – Free from traffic jam	Accessibility

3.2. Consequences

From the result of keyword grouping of consequence variables, then we found 14 categories with total frequency as much as 321 (Figure 3). The categories are “security”, “personalization”, “mood/ambience”, “maintenance”, “interaction”, “image”, “flexibility”, “environmental”, “economy”, “durability”, “convenience”, “comfort”, and “circulation”. The categories with the highest frequency are comfort ($f = 87$), convenience ($f = 53$), economy ($f = 43$), interaction ($f = 41$), and mood/ambience ($f = 22$). The distribution analysis of the categories of consequences can be seen in the diagram below:

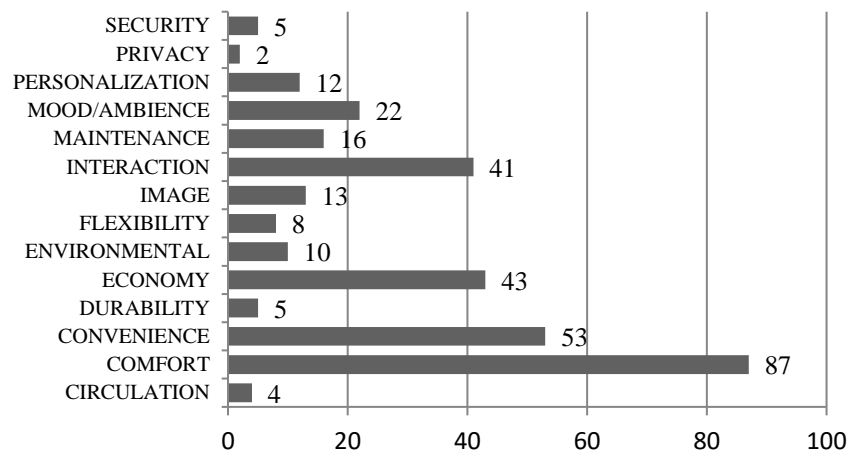


Figure 3. Distribution analysis results of the housing attributes.

The example is “comfort” categories, comfort ($f = 87$) is the highest frequency for consequence desired by young adults. The “comfort” category ($f = 87$) has two small categories of “physical comforts”, represented by keywords such as “greeny”, “cool”, “fresh”, “not fetid”, and “clean” and “phycological comfort”, represented by the keywords such as “comfortable/not bored”, “impressed not cramped”, and “provide comfort environment”.

The convenience category ($f = 53$) represents the house that has additional facilities, there is a “playground for children at home”, “home as a family recreation”, “the room in accordance with tenants needs”, “the room in accordance with the family capacity”, “the room as desired”, and “the tenants ease for worship activities”.

The category of the economy ($f = 43$) has the keywords represented as “cheap”, “affordable”, “by the financial condition of the tenant”, “can be a good investment”, and “it’s not burdening a life planning”.

The interaction category ($f = 41$) have two small categories: the first is “group participation” has represented keywords such as “focus on the family” and “as a family gathering place”. The second category is “social categories” has the keywords represented as “being a place to interact with others”, “humanists”, “socializing with neighbors”, “there is a place for child's playground”, and “social environment is kinship”.

While mood ambience ($f = 22$) has a keyword that is represented as “can reduce the stress level”, “provide tranquility for the tenant”, “as a place to rest” and “relax during the weekend”. The category and keyword can be seen in table 2.

Table 2. Example axial coding of housing attribute

No.	Keyword	Category
1.	<u>Physical comfort</u>	
	– Greeny	Comfort
	– Cool	

	<ul style="list-style-type: none"> – Fresh – Not fetid – Clean 	
	<u>Phycological comfort</u>	
	<ul style="list-style-type: none"> – Comfortable/not bored – Impressed not cramped – Provide comfort environment 	
2.	<ul style="list-style-type: none"> – Home as playground for children – Home as a family recreation – The room by tenants needs – The room by family capacity – The room as desired – The tenants easy for worship activities 	Convenience
3.	<ul style="list-style-type: none"> – Cheap – Affordable – By financial condition of the tenant – Can be a good investment – It's not burdening a life planning 	Economy
4.	<u>Group participation</u> <ul style="list-style-type: none"> – Focus on the family – Home as a family gathering place <u>Social</u> <ul style="list-style-type: none"> – Home as a place to interact with others – The home must be humanists – The tenants can socialize with neighbors – There is a place for child's playground – Social environment is kinship 	Interaction
5.	<ul style="list-style-type: none"> – Can reduce the stress level – Provide tranquillity for the tenant – Home as a place to rest – The tenant can relax during the weekend 	Mood/ambiance

The next phase was the selective coding. At this phase can be seen the relationship between the categories obtained from the previous analysis. Selective coding is done using correspondence analysis to find out which key categories often mentioned simultaneously (Figure 4). In the diagram is coincidence between categories of housing attributes with their consequences. From the analysis, the keywords of housing attributes and consequences that are often mentioned simultaneously to be formed into six groups.

The first group of young adults with “comfort” consequences ($f = 87$) tend to prefer housing attributes with the green area and view ($f = 56$) and simplicity ($f = 43$). The existence of the garden and the number of trees certainly provides freshness for the home environment so it can have a positive impact on the tenants. Therefore the tenants will also feel more comfortable at home. This result is supported by the research conducted by Wu [12]. In his research [12], the existence of a natural environment called the Green Space and View (GSV). The GSV includes gardens, open spaces or lakes, and unobstructed views

are useful to look around [12]. So the tenants do not feel bored at home. Korpela also said the natural environment would help lower the negative mood [13].

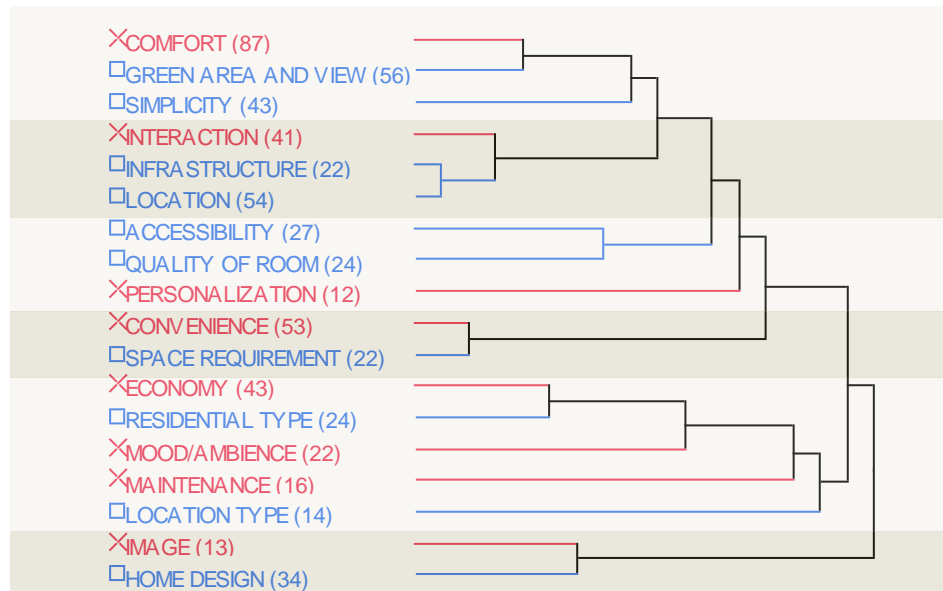


Figure 4. Correspondence analysis results of the housing attributes and consequences (P. Value 0.0004*)

Furthermore, young adults who demand “interaction” consequences ($f = 41$) prefer attributes of infrastructure ($f = 22$) and location ($f = 54$). Infrastructure attributes that contain "clean water", "electricity available", "good drainage", "no flood", and "the street in good conditions" can provide benefits for easier interaction, as well as location attributes.

Then, the consideration of personalization consequence ($f = 43$) is obtained from accessibility attribute ($f = 27$) and room quality ($f = 24$). The convenience consequence ($f = 53$) is derived from the space requirement attribute ($f = 22$). The existence of space requirement turns out to provide the consequences of convenience for the tenants.

The desired residential type ($f = 24$) and location type ($f = 14$) attributes can have good economic consequences (43), mood/ambiance ($f = 22$) and maintenance ($f = 16$). According to the data, the residential type category consists of keywords: “the house consists of one floor, the house consists of two floors or more, and respondents prefer to choose to live in an apartment or housing. Meanwhile, the category of location type is related to site selection. This category has the following keywords: “site is in the city center”, “site is close to the city center”, “site is far from the city center”, “the site is in the hills”, and “site away from the access road”. From the correspondence analysis results, young adults choose the residential type attribute and location type because it is closely related to economic reasons such as "cheap", "affordable", "inappropriate with the financial condition of the tenant", "can be a good investment", "It's not burdening a life planning". It also has to do with the maintenance, such as “easy to care”, “practical treatment”, and “cheap treatment”. This certainly affects the mood and ambiance of residents.

The home design attribute ($f = 34$) has consequences that can lead to the image on their houses ($f = 13$). The home design attributes are responsible in giving the image, the tenants can make the design of the house by the image that they want to bring.

4. Conclusion

From the result of the analysis of the housing attributes, we uncovered 12 categories that are identified with total frequency as much as 337. There are “simplicity”, “spaciousness”, “quality of room”, “green

area and view", "infrastructure", "space requirement", "home design", "residential type", "location type", "accessibility", "proximity to big family", and "location". The most common keywords are the green area and view (f=56), location (f=54), simplicity (f=43), home design (f=34), and accessibility (f=27).

The result of keyword grouping of the consequence variables, we uncovered 14 categories with total frequency as much as 321. The categories are "security", "personalization", "mood/ambiance", "maintenance", "interaction", "image", "flexibility", "environmental", "economy", "durability", "convenience", "comfort", and "circulation". Five categories with the highest frequency are comfort (f = 87), convenience (f = 53), economy (f = 43), interaction (f = 41), and mood/ambiance (f = 22).

The correspondence analysis finds out which key categories are often mentioned simultaneously. There are six groups of coincidences between housing attributes and consequences. The biggest group of young adults whose prefer comfort consequences (f = 87) also tend to prefer housing attributes of the green area and view (f = 56) and simplicity (f = 43). The existence of the garden and the number of trees certainly provide freshness for the home environment so it can have a positive impact on the tenants. Thus the tenants will also feel more comfortable at home.

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