

Personalization as Sustainable Satisfaction, A Comparative Study On Vertical and Horizontal Housing

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ABSTRACT

Personalization is the symbolization of individual or group ownership of a place or object by using initials / sign / symbol either physically or non-physically. The individual or group character and environment shapes the personalization character. Perception, experiences and preference influence the esthetics in displaying the personalization, which is done by changing, adding and modification. The process of personalization aims to meet the needs and achievements that suits the user group's character to generate sustainable satisfaction. This research aims to finding out the difference of personalization needs and achievements in vertical and horizontal housing. User group character, the physical setting of the environment affects the behavioural phenomena. The research is conducted by literature review method to Environment Behaviour Studies from prior literatures and researches. The result of the discussion of personalization behavior phenomena is a study of behaviour development that suits the user group's character and physical environment.

1. Background

Housing is a social condition that is able to determine the welfare of its inhabitant. The housing location and quality, which is influenced by the social environment, economy, culture, defines the life of the inhabitant. Welfare, security, assuredness of infrastructure, housing quality, environment quality and the human resources are the elements that should be sustainable. Housing as a physical function, is a shelter that is designed with physical building quality. While housing as a social function is reviewed based on the inhabitant's behavior (both individually and socially) with its environment (Onibokun 1974).

Ogu (2002) elaborated that housing satisfaction is a qualitative evaluation of the housing quality. Galster (1987) defines housing satisfaction as the discrepancy between needs and achieved. The inhabitants as the subject of the activities are connected to the environment within its behavioural context. The human behavior as an individual or social process, influences one another. As explained by Lang (1987), that there is a reciprocal between the human behavior and the built environment. The connection between the human behavior and its built environment is known as the Environment Behaviour Studies.

Snyder (1979) explained further that the environmental behavior is not only about the function of a building, landscape or other physical environment, but also about esthetics. Environment Behaviour Studies (abbreviated as EBS), according to Snyder (1979) is a study about the connection of the environment and the human behavior, and its application on the design process. If as a function, EBS studies about behaviours and needs, so as esthetics EBS studies about preferences, experiences and perception. Altman (1976) elaborated that environment behaviour studies/ EBS consists of 3 components, which are environment-behaviour phenomena, user group and settings. Behavior phenomena to the environment will vary, due to the difference of meaning, symbol and also the way human make use of the environment as self representation. For example is privacy, is a personal behavior phenomena that is related to the individual behavior pattern, rules and the social system within the environment. The difference within the user group will bring out different needs and activity pattern, while setting according to Altman is the scale of the environment in which the activity takes place.

Roger Barker (1955) defines EBS in 4 characters, a standing pattern of behaviour (individual behaviour), social rules (norms), physical environment (social space, private space, etc) and time locus (time : hour, day, month etc). So it is clear that environment behavior study is the study of human behavior, as an individual or social (a group community) to the physical environment, reviewing both physical and non-physical needs.

Universally, humans tend to symbolize a space that they occupy such as the fence or the terrace as a symbol to identify a space to its owner. Space identification can be done on some areas, such as: in front of the house such as the front door, the terrace, pedestrian pathway; the back of the house such as additional kitchen, grill, flooring and door. Basically a small house needs a bigger kitchen space that is usually located in the back of the house nearby the terrace. Additional space is usually made in situation in need of a wet area (dish washing area). The inhabitant's behaviour gives meaning and identity to the space or house is an act to reach satisfaction to the inhabitant.

Inhabitant behavior phenomena of vertical housing is different to that in horizontal housing. Most of Indonesian people have not been fully able to accept the vertical housing concept. The change of horizontal housing concept to vertical housing concept is not just a matter of physical building, as result of limited available land and the need of shelter, it also induces change in the human behavior inhabiting the vertical housing.

2. Methodology

This research is a literature review, which is by analyzing Environment Behaviour Studies, Housing Satisfaction and Personalization. To be more applicative, it is equipped with research analysis from journal sources. Some field study objects are used to complete the literature analysis review to give a communicative approach.

3. Result and Discussion

3.1. HOUSING SATISFACTION

Hunt (2001) stated that there needs to be more understanding about room connection (physical setting) with user behavior in order to achieve a sustainable community. The user's behavior defines its satisfaction with the housing. When the satisfactory level is low, the user will adapt to modify to their needs (Kiney et al, 1985 & Wells, 2000). Moreover Varady (1998), explained that housing satisfaction is a discrepancy condition of the user's expected needs with the reality achieved, which is measured by the individual satisfaction or family member or specific social group to the housing unit or the environment. An appropriate housing is not only formed by its physical availability of building factor but also social factors, behaviour and the user's culture (Onibokun, 1974). Satisfaction towards physical and non-physical quality reflects the living quality of the user.

Factors that define the satisfactory level include: (1) Ownership Status (Barcus, 2004). Ownership affects on the level of security control and pride. (Rohe & Stegman, 1994). (2) Housing Character. A housing character can be measured objectively and subjectively. Objectively, based on physical buiding aspects and background factors that underlie the existence of character (Chapman & Lombard, 2006), (3) Social Economy and (4) Demography (age, family compositon, earnings, education).

Lee (2011) stated that the housing satisfaction can be measured by design indicator. Family-friendly, neighborhood-friendly and environment-friendly. The user's active role within community activities will nourish the bond of togetherness among apartment inhabitants. To reach those, there need to be a Living program, which covers:

Activation of community spaces, activation of community programs, activation of participation, and activation of ecological living and design. Activating of community space depends on the user's characters, which are age, family structure, occupation, hobby and lifestyle. Lee produced a research that apartment user's character that is dominated by the age of more than 40, will have an ownership status to themselves so the outdoor space is the most used one. For example the park and open sitting space. Activating community space affects to the increase of satisfaction within the overall living environment. Community space gives meaning to the sustainability of community within the apartment. To make the understanding of sustainable community achievement more clearly in modern vertical housing, this concept scheme explains shows the connection.

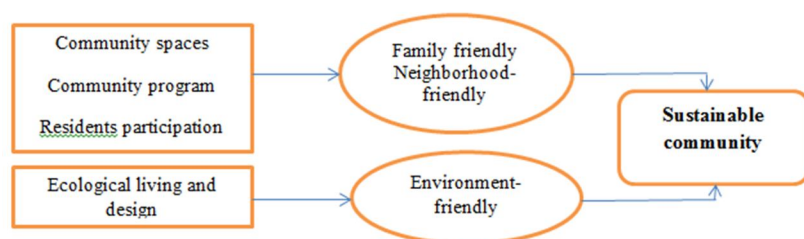


Figure 1 : Sustainable community model concept in apartment
Source: Author's reconstruction from Lee (2011)

Based on sustainable community concepts at figure 1 above, the apartment user behaviour phenomena shows that community space aims to facilitate activities specifically to enhance the social interaction within the family, neighborhood and environment. Because community space in modern vertical housing is designed for social interaction with personalized behaviour phenomena as a sustainable community process.

3.2. PERSONALIZATION

Personalization is the symbolization of individual/group ownership of a place or object, through occupancy initials and attachment (Brower, 1976). Based on a statement by Altman (1976), the territory has basic characters of ownership, personalization, rules to live by and the ability to fulfill physical and esthetical needs and also cognitive satisfaction. Lang (1987) added that it is important to fulfill psychological need to reach personalization.

Altman (1980) clarifies territory on personal identity function and social system regulation. Personal identity functions as a boundary of oneself and others, which is oneself as an individual or a group to the as territory boundary identity. Personalization helps in facilitating social relations, not only as an access control but also as an aspect of privacy which differs one another. Personalization as a symbol/self expression control (individual, family, group) could happen in primary, secondary dan public territory. Social system regulation, is a function of individual or group relation process with the social environment.

Marking of ownership to a place/territory could be done physically or non-physically. Building, room, landscape can be personalized by working on the physical or non-physical boundary element through the change of color, the difference in distance and the usage of different materials. Personalization is a behaviour phenomena that is beside the study of function is also a study of esthetical preference aspects experience and, perception.

3.2.1. Personalisasi as Preference

Preference is influenced by lifestyle. Lifestyle is not only to be interpreted as an activity, but can also be a representation of a background of culture, age, gender, education, occupation and even religion. A community with a certain lifestyle will be contained and manifested in the quality of environment profile. Apartment as a form vertical housing is a facility for urban society lifestyle who requires handy housing, effective (easy access to the workplace), privacy and has a high investment value. Apartment facility is a similarity point for the different cultured inhabitants. The similar profile of the user are facilitated in the public territory, such as the swimming pool, gym center, parking area, center/café and shopping area. Whereas personalization occurs in primary and secondary areas, which is the user's private area with permanent ownership so that the room personalization is clearly available, both physically and non-physically. The secondary area is the area of mixed use between the private and public. Personalization within this area occur ambiguously between individual or social preference.

Omar & Saruwono (2012) explained that the housing façade reflects the user's social status preference. Real

estate that are designed in standard and similarly does not accommodate the future user's preference. That results in discrepancy or insensitivity in social culture aspects as its local context. Culture is no longer an issue/context in mass production building design. Based on that issue the individual/group that are different in preference tend to change the design by renovation or modification.

Sazally (2012) explained that house changes and renovation occurs due to individual preference aspect or family needs. The renovation mostly occurs on the front side of the house, than the back or the sides. From the time aspect, change and renovation at the back side of the house is done prior the front side. It shows that personalization of the front façade is a symbol that the owner wishes to have his/her boundary or to be different from the environment. The reason of personalization in front of the house is for personal needs and social status. Whereas personalization in the back side (kitchen and service area) and the side area (living room and garden) shows that there are family needs to facilitate family activities. The personalization is suited with the needs and habits of each family member which reflects their own personality and also suited with the environment surrounding them. Moreover, personalization at the side parts of the house are more to add esthetics to the house (garden, living room expansion, terrace. Horizontal housing personalization is modifying or adding the exterior building, either in the front, back or sides of the building façade. Because horizontal housing has garden, fence, building façade and the comple house composition. According to the discussion above, it can be concluded in the following table 1:

Table 1 : Personalization on horizontal & vertical housing based on preference

Type of Housing	Preferences	Personalization
Horizontal Housing	Individual dan Family needs	Personalization in the interior and at the eksterior. Its occurrence gives obvious identity to the user.
Vertical Housing	Individual dan social needs	Personalization occurs at primary area (unit) and secondary (community space). Shared ownership at the community space creates ambiguoity between the individual and public needs.

3.2.2. Personalization as Experiences

Living in a vertical housing is a new culture for Indonesian people, so that some of the time activities that are executed in horizontal housing are carried to the new housing environment which is the vertical housing. The density of housing unit at a vertical housing contributes to small space for the user, even just in talking or fulfill the needs of listening to a high volume music. So that speaking or using loud audio system will disturb the unit neighbors or even the users overall. Here, the users are to adapt themselves to not to disturb the neighborhood.

Kurokawa (1994) emphasizes the importance of having an element and intermediation space within the housing environment. Intermediation space or semi-public space can be very meaningful to the user. The physical housing environment needs to be built upon culture, faith and the user's experience (Ismail, 2012). When the migrants from the village to the city, where there is no room for transition in the city, will affect their lives and adaptation in the city. Transition space in this context is the house 'garden'. The Melayu people believe that the "garden" is a place that functions as a multifunction transition space, where the garden is located outside of the house and used for gathering and a place to play for the children

Carsten (1997), explained that a *kampong* can be interpreted as "a small village or a lawn that can be used or maximized as a house. In the Melayu village life, rooms within the house are built with a space that is not too far or close to each other. This is so that each room can have its own privacy. In the village there is a sense of respect to privacy in individual and public space without physical boundaries.

For illustration, a Javanese house terrace is intact with the front yard. The open concept in horizontal housing is able to facilitate the user's private activities, because the terrace is used as a sitting area to watch the cattle or the processing of the harvest. However the terrace also has social functions, that is as a gathering place with the neighbors. The terrace has pillars to mark a 'humane' personalization, according to the kinship relation of the community. Personalization in Javanese house is able to present in the terrace and front yard as a transition space (the terrace) that unites with the front yard. (Fig. 2)



Figure 2 : The transition space of horizontal housing merges with the public space.

A different personalization condition appears in vertical housing. The user's satisfaction does not only depend on their individual unit, but more on the physical and social environment (Francescato et al, 1987). The satisfaction within vertical housing is related to the sense of togetherness. Explained in Tim Cho's (2007) research stating that to create a culture based vertical housing concept, emphasizes on the need of community space for togetherness. Community space a social environment aspect is used by sharing, which the uses are defined by the management. Raman (2010) stated that social relation within high rise building user are very low, because social interaction mostly occur in the same floor level users. Acquaintanceship among the same floor users a bigger than among different floors/blocks. This occurs in different types of corridor (Aziz, 2013). Hashim dan Rahim (2010) researched that the weakness of privacy concept in modern buildings are that in considering social interaction, culture, visual and acoustics aspects.

In vertical housing, shared facility ownership is strata title ownership, which is shared ownership both horizontally and vertically to a part-object and shared land. (UU RI no. 20/2011 pasal 1 ayat 1). Altman (1980) stated that the shared space is as a secondary territory, the space where the need of the private and public meets, which potentially causes conflict. Moreover Syamwil (2012) stated that the need of private and public space in a certain social economy will lead to personal and communal space which suits the social character context. The physical environment as the human restraint in behaviour can be reviewed as personal/private or social function (Altman, 1980). According to Rapoport (1986), the physical environment defines the human behaviour (environmental determinism), the physical environment provides boundaries in which the user can (environmental possibilism) or the physical environment provides options but does not determine (environmental probabilism).

For example, the migrants from the village complains in the first phases of their migration to the city. The migrants feel that living in an apartment limits the communication between neighbors and other users, moreover feeling isolated and alienated.

In an apartment, every person can walk to the door and window of other user, which decreases each user's private area. They feel that there is less privacy and security knowing that there are people constantly passing by the apartment corridor. Parents who live in an apartment, usually do not like their children to play outside (the garden) without any adult supervision, so that they limit their children playing to only play in the narrow corridor, balcony and lift lobby.

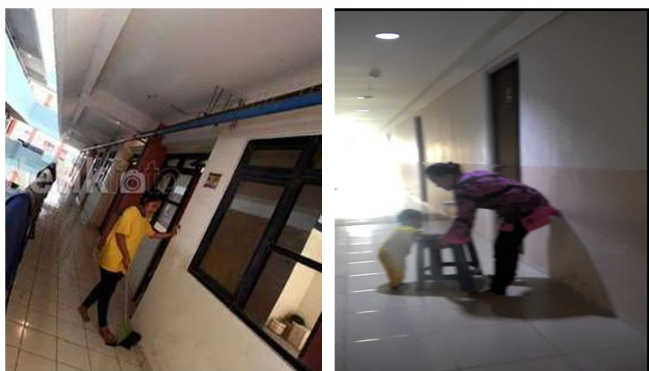


Figure 3 : Transition space in vertical housing is a semi public space that unites with private space

The provision of floor social space for mothers and children is highly required. Such social space needs design and supervision consideration to fulfill the needs of both the children and the parents. Whereas the difference in

horizontal housing, village houses are usually built separately from one another. The partition could be trees or grass that is able to deter the visibility from other houses to give more privacy from the neighbors. A migrant felt that “closure with distance” between the life in the city and in village is very different, where the migrant stated “we share the same walls now (with our neighbors)”, but yet we feel so far.

According to private and public space phenomena horizontal housing and vertical housing study above, it shows that culture and past experience is very important and plays a great deal in translating personalization. The habit of having a transition space at a housing which is the garden creates it as a main necessity to socialize with the social environment. Basically behaviour within the transition space is still a need in the vertical housing however with different meaning. Personalization in vertical housing is preferred to be non-physically. Close physical boundary within intimate scale does not mean intense in socialization, but more of verbal socialization, audio and expression. So that in effort of reaching personalization in housing, the non-physical solutions are more preferred. Different with the horizontal housing, personalization has to be reached in the public scale. The users are still able to interact socially and comfortably without the lack of privacy. Personalization needs in horizontal housing has a greater scale than the vertical housing. The following table 2 provides information on experience based personalization.

Table 2 : Personalization in Horizontal & Vertical Housing based on Experiences

Type of Housing	Experiences	Personalization
Horizontal Housing	Greater social interaction and communal, interaction forms both physically and non-physically.	Personalization on public scale.
Vertical Housing	Less social interaction, more individual, non-physical interaction.	Personalization in private scale (primary) and secondary.

3.2.3 Personalization as Perception

Perception is the process of obtaining or receiving information from the environment. Perception is not only a matter of sensing but also of the interpretation of experience. Indonesian people who are used to horizontal housing will need to adapt to vertical housing.

According to Kaplan in Laksono (1999) , the adaptation concept is interpreted as a process that connects cultural system and its environment. Culture and environment interacts in a single system, but does not mean that culture causal influence to the environment is as the same as the influence of environment to culture. The development of technology also brings dynamics into the relation of culture-environment interaction. But it is more dominant on the culture dynamics.

According to Wohlwill in Environmental Psychology, Fisher (2001) that adaptation levels to the environment depends on stimulation from the environment. It is explained that too much of environmental stimulus will bring a bad impact on the human behaviour and emotion, vice versa without stimulation humans will not be able to respond well.

Altman (e.g. 1975) in Fisher (2001) moreover explains about environment mechanism in which we are able to control privacy according to the needs. Garling, Biel and Gustafsson (1998) also explained on how to reach the optimum condition from a suitable/preferred environment. The optimum stimulation level is the one that reaches the suitable and appropriate condition. There are 3 kinds of optimum stimulation that influences adaptation:

- a. Intensity. Psychologically, anything with high or low intensity will bother and is not expected. For example in a soundproof room, a soft voice although in a low volume is considered as disturbance.
- b. Diversity. For example, a food menu that lacks in variation will cause boredom, however too many courses on the menu will lead to confusion in selecting. Wohlwill (1974) stated that the human comfort level is intermediate level.
- c. Patterning . Too many patterns offered will make determining of attitude difficult.

Based on the comprehensions above, the level of adaptation depends on how an individual responds to its environment that is suitable with their needs. With too much variety, the human will confuse to select the suitable one. With high intensity, will make it difficult to adapt, so it is also with anything that is complicated and hard to understand should be made into a pattern so that it's easier to be perceived.

Based on table 1 and 2, personalization in horizontal housing occurs to give identity to the user. Which means that the perception built by an individual or family is dominantly to give / declare an identity. The activity setting of horizontal housing causes higher intensity in non-physical social interaction, although personalization appears in a public scale.

On the other side, personalization in vertical housing dominantly appears on an individual level. The shared space at vertical housing is perceived as private space due to shared ownership rights. On the other hand the community/shared space is also a public facility. Personalization becomes ambiguous when the shared space is perceived as both private and public space. So that interaction between user in vertical housing only appear in secondary areas (semi-public) which is the area closest to their unit at the same floor.

4. Conclusion

There are difference in personalization meaning between horizontal and vertical housing. The physical environment setting defines its user's behaviour. The difference in lifestyle background among the user group character also creates difference in behaviour. Personalization as a behaviour phenomena should be analyzed together with the physical setting and user group's factors. Table 3 explains the conclusion from the analysis of horizontal and vertical housing personalization..

Table 3 : Personalization at horizontal and vertical housing

Type of Housing	Personalization		
	preference	experience	perception
Horizontal	Individual and Family needs	Physical and non-physical social interaction	High intensity in social interaction
Vertical	Individual and social needs	Non-physical social interaction	Low intensity in social interaction

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