End-Users’ Sense of Home in Mass-Housing Based on Maslow’s Theory

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Abstract

"Sense of home" in mass housing depends on the degree of congruity of the environment with end-users’ different motivations, which would be achieved by their participation. End-users’ participation in mass housing is quite challenging and critical because they are inaccessible and absent. This paper aims at investigating the interrelationships between end-users’ motivational factors and different participatory modes/levels. An overview of theories and concepts on human motivation and different participatory modes/levels results in explaining the degree of readability of different motivations, and the application of various participatory methods in representing these motivations.

Keywords: Mass Housing; Participation; End-Users’ Needs; Sense of Home
1.0 Introduction
Homemaking depends strongly on congruity of physical attributes of living environment with end-users’ motivations, i.e. physiological, psychological, emotional, sentimental, and spiritual demands (Jusan, 2010). According to the concept of personalization, end-users’ presence or participation is one of the main prerequisites in providing the congruity (Jusan & Sulaiman, 2005). Hence, participation is a key concept in improving the sense of home.

However, end-users’ participation in mass housing is a challenging and problematic concept. The main challenge indeed is to develop a suitable participatory approach in mass housing, which is capable of fulfilling the demands for paying attention to end-users’ motivations in this housing type. While, the popularity of the products makes the engagement quite critical, the absence and inaccessibility of end-users in decision making detract the possibility of their involvement. The conceptual complexity of the term motivation is also another issue, which intensifies the problem. The popularity is coupled with a high range of financial investment in this housing type because of the existed marketing trends, and the capability of the products in fulfilling the expectations of different groups of house buyers’ and end-users (Meng, 2006; Mc Harg, 1669; Miller, 2007). Therefore, clarifying the association between end-users’ motivations and participatory modes/levels would be somehow beneficial in developing a reasonable participatory scenario for mass housing.

Accordingly, this paper aims at investigating the applicability of the different participatory modes/levels in various stages of mass housing delivery in representing end-users’ motivations. The central assumption here is the degree of readability of individuals’ motivations. The conceptual complexity of human motivations detracts the readability, which makes necessary the direct involvement of end-users in the decision-making process.

In explaining individuals’ motivations from housing preferences, it is initially necessary to figure out a concrete approach to the concept of motivation. Indeed, since the motivation is a somehow subjective, abstract, diverse, and multidimensional concept, it is quite challenging and even sometimes impossible to be considered properly in a housing provision process. Therefore, it is quite essential to find out a content-specific concept, which can comprehensively cover the different aspects of human motivation, and is capable of providing practical characteristics for the different motivations. For this purpose, initially, an overview of some motivational theories and concepts would result in the identification of a suitable theoretical platform for the study. Then, the different participatory modes/levels will be discussed to shed light on the capability of these various modes/levels in representing the different motivations. The paper, in final, will end at a discussion the possibility the application of each of participatory modes/levels in representing the various motivations at different stages of mass housing delivery.
2.0 Literature Review

The modern lifestyle is characterized by a number of issues, e.g. mobility, individualization, professionalization, urbanization, industrialization, globalization, and standardization (Israel, 2003; Miller, 2007; Meng, 2006, Moser & Uzzell, 2003). These characteristics alongside with overall population growth, housing shortage, economic crisis, and lack of resources play quite prominent roles in making a quantitative approach to mass housing. The quantitative approach prevents housing authorities to pay proper attention to human motivations in mass housing provision schemes (Meng, 2006; Oliver, 2006; Stanley, 2009). The low-quality productions as the outcome of the quantitative approach not only is responsible for a vast amount of negative physiological consequences, but also is a prominent source for some psychopathological consequences, e.g. boredom, fatigue, depression, and anxiety (Kaplan, 2001; Lawrence, 2006). The lack of spatial quality makes unable the place in fulfilling the demands for personalization and specialization, which detract prominently end-users' sense of place. Lack of sense of place may eventually result in placelessness, uprootedness, and rootshock, which is a “traumatic reaction to the destruction of individual’s identity” (Stanley, 2009; Tuan, 2007; Weil, 1952).

Research works stress intensively the importance of human motivations in improving the concept of "sense of home" in the living environment. For instance, studies conducted on housing image emphasize that a home is a place for personality expression, socio-cultural connectivity, historical continuity (Miller, 2007; Norberg-Schulz, 2000; Stanley, 2009). In this regard, housing physical environment is critical in providing the sense of place, i.e. attachment, confidence, and rootedness (Stanley, 2009). Studies conducted on psychological well-being also highlight the role of housing environment in end-users' withdrawal and restoration [Kaplan, 2001; Tall, 2007].

However, the conducted studies are seldom able to provide an operational approach to the concept of motivation that is applicable in clarifying end-users' perception from housing needs. Since the concept of motivation is quite subjective and abstract, identification of a content-specific and concrete approach to the concept that is capable of covering the various aspects of human motivations is a necessary action in increasing practical implications of the investigation.

However, there is segregation and disparity among the studies conducted on motivation (Wilson, 1998). Although the different theories and concepts may properly deal with a subset of motivational variables, they are seldom able to represent realistic situations, because the real situations encompass broader sets of interplaying factors (Steel & Konig, 2006). The concepts and theories look at the context from different viewpoints, which make the situation much more complicated (Wilson, 1998). This situation detracts the progress of the field, which reduces the practical application of the outcomes (Steel & Konig, 2006; Wilson, 1998). Bearing this in mind, a common demand across the discipline is, however, the desire for a comprehensive, content-specific, and conceptually clear concept (Lai, 2011).
It is believed that needs theories have the potential in covering the different aspects of human motivations (Steel & Konig, 2006). Steel and Konig (2006) state that the various characteristics stressed by the need theories share strong commonalities with other motivational concepts and models. Need intensity is similar to utility because individual follows actions that help him in reducing his/her most substantial need; similarly, he/she also follows actions that provide him/her the highest utility. Needs are related to value to the extent that they are applicable in determining the actual value of the outcomes. Needs fluctuate because of satiation level, meaning that to predict an aggregated behaviour, the average or trait level is sufficient, but for specific outcome strength of need intensity is vital. Finally, press addresses a particular combination of both expectancy and time delay. Press provides a proper logic to integrate internal and external factors. In other words, press assists in explaining the transformation of the original needs to other forms of motivations, i.e. ideals, dreams, beliefs, and schemata (Fig 1) (Asad Poor, 2014).

![Figure 1. External fields as a transition between motivations and behaviour](Source: Asad Poor, 2014)

Among the different needs theories, Maslow’s (1970) theory provides the most universal, comprehensive, and content-specific definition, categorization, hierarchy, and characteristics of human needs (Cherry, 2011; Tay & Diener, 2011). The theory enjoys a broad range of acceptance among literature and has been recently examined by a number of empirical research works (e.g. Cherry, 2011; Soper, Milford, & Rosenthal, 1995; Tay & Diener, 2011; Yawson, Armah, & Pappoe, 2009).

Maslow (1970) classifies human needs into five categories including physiological, safety, affection, esteem, and self-actualization. The theory encompasses some practical characteristics, which are applicable in clarifying end-users’ perception from housing needs. Needs intensity makes it possible to recognize an exclusive motivational level meaning that the most intense need is the exclusively demanded need. Through needs intensity, it would also be possible to identify the direction of individual’s motivational tendencies. In this regard, decreasing the intensity would be a sign of decreasing the demand for the needs. The direction makes possible to classify the necessity of satisfaction into a direction of short-run, medium-run, and long-run tendencies. The theory provides a hierarchical classification, which is another sign of the existence of a specific direction. The hierarchical classification also represents a particular structure for human motivations, which is another
criterion for distinguishing and classifying different areas of housing needs. Also, by increasing the hierarchical level, multidimensionality and complexity of the needs are increased. Therefore, primary levels are relatively objective and content-specific while the higher levels are quite complicated and multidimensional. Increasing complexity and multidimensionality has an essential role in the readability of the needs. Despite the superficial differences, the original needs have the same origins. They are autonomous from individual's socio-cultural background, and even economic status. This characteristic makes the theory applicable in systematic evaluation of human motivation, even for people with different backgrounds. These characteristics are some other reasons in making the theory applicable in explaining end-users' perception from housing needs in mass housing.

Selecting the theoretical ground of the study the next stage is to explain the association between housing physical attributes, and different participatory modes in meeting end-users' motivations in mass housing. For this purpose, a developed theoretical framework assists in explaining the application of different levels of needs in evaluating the congruity of physical attributes of living environment with end-users' motivations (Fig 2). The framework is able to explain end-users' perceptions from housing needs through their housing attributes preferences.

![Diagram](image_url)

**Figure 2. Developed theoretical model of personalization in built environment**

*Source: Asad Poor, (2014)*

The framework suggests that the pattern of participation depends on the degree of readability of end-users' perception, or the possibility of representation of their needs. Therefore, implementation of the developed framework results in selecting suitable participatory modes of responding to different levels of motivations, which results in delivering a relatively more congruent living environment in mass housing, enhancing the concept of "sense of home" in this housing type.
3.0 Methodology
In housing, it is important to make the physical attributes capable of fulfilling end-users’ motivations. For this purpose, end-users’ participation is a key concept in enhancing the capability of the attributes (Jusan, 2010). Ideally, full participation of end-users ensures the expected outcomes, but practically in the modern days housing end-users are not able to be connected to the whole process of decision making. Especially in mass housing that end-users are unknown, inaccessible, and varied in number and dispersion. Concerning the partial participatory decision making, identification of the role of the different stages of housing delivery with regard to their ability in providing the highest advantages and benefits in fulfilling end-users’ different motivations is essential. It is believed that the residents’ involvement is necessary for representing their motivations from early stages of housing delivery to the end (i.e. decision making, design process, performance and construction, and even post-occupancy stage). Although connectivity to each stage improves the congruity, the outcomes are not equal regarding the quality of the final products. Therefore, it is necessary to explain the applicability of the different participatory concepts for meeting end-users’ various motivations in different stages of housing delivery.

Reactive participation that is a needs-driven or top-down approach looks at housing delivery as a process that must be controlled by authorities (Ling, McGee, Gaventa, & Pantazidou, 2010). Therefore, housing is provided based on a formulated plan arisen from housing authorities’ perceptions of end-users’ needs (Petts, 1995). In this case, residents must adapt themselves firmly to a standard solution, even though they have rights for slight modifications of the occupied environment (Moser & Uzzell, 2003). Regarding reactive participation, the acceptability of a delivered housing depends on physical and functional flexibility of the housing physical attributes, which enhance the possibility of their post occupancy interventions (Jusan, 2010). There is no guarantee for the results of the modifications, and the time and economic costs of post-occupancy interventions are very high; hence the passive participation is not a proper participatory scenario in meeting end-users’ different needs in mass housing.

However, individuals are not objects, service users, and costumers, but also are subjects to the process of development (Ling, McGee, Gaventa, & Pantazidou, 2010). Consequently, shaping the environment is a matter of human rights. According to the idea of the proactive concept as a bottom-top approach, it is a human right to have a proper housing unit. So it is a matter of people’s right to meet their motivations in their living environment (Moser & Uzzell, 2003). In proactive participation, residents should be connected to the decision-making process. End-users’ involvement in decision making gives them the opportunity to organize directly the environment based on their personal demands and characteristics (Onder, 2010). Therefore, proactive participation from this angle may affect positively end-users’ sense of appreciation, attachment, and identity. From this perspective, proactive participation is applicable in providing a proper ground for “sense of home” as well.
From another angle, end-users’ participation might be direct or indirect. The direct participation requires the presence of the end-users. In case of inevitable absence of the target population, it is necessary to represent end-users’ motivation through indirect participation by making surveys on a sample of people who has the potential for being estimated population. Table 1 describes briefly the concept and characteristics of the different participatory levels in sum.

Therefore, it is necessary to explain the applicability of the different participatory concepts for meeting end-users’ various motivations in different stages of housing delivery. In mass housing, end-users are inaccessible and unknown; hence proactive and direct participation in early stages of housing decision making is impossible. However, indirect participation, on the other hand, is not capable of fulfilling the whole set of end-users’ motivations. Regarding the future expected motivations, fluctuating, and emerging motivations, or even innate and personal motivations, also passive or reactive participation is a probable scenario for the future necessitate changes. Indeed, a multidimensional approach is required, which makes housing provision authorities able to employ the different participatory modes/levels according to their capability in fulfilling the different levels of needs at various stages of housing delivery.

4.0 Results And Discussions
Two characteristics of the different levels of needs, i.e. needs complexity and multidimensionality, alongside with needs direction and intensity play essential roles in clarifying the association between the different levels of needs and the various participatory levels/modes. According to Maslow’s theory, by moving up through the hierarchical levels, complexity and multidimensionality of human needs are increased. In this regard, the primary levels are relatively concrete and tangible, while the higher levels are quite abstract and subjective. From this viewpoint, the primary levels are more likely to be represented by decision makers through indirect participation even though end-users are absent and inaccessible. However, representation of the higher levels depends on the presence of individuals, which is related to their direct and active participation. Therefore, the primary levels are almost possible to be represented in early stages of housing delivery. For the higher level of needs, decision makers should preserve end-users' rights for active and direct participation in the process of housing delivery. For emerging, changeable, personal, and innate needs, it is still necessary to consider passive participation as a suitable solution, which would be achieved through housing attributes flexibility.

The second characteristic that affects the development of a suitable participatory methodology is related to the direction of end-users' needs. In this sense, participation is a matter of end-users’ exclusive needs in combination with their future motivations including their medium-run and long-run demands. Exclusive needs should be considered in early stages of mass housing decision making even though they come from the higher levels. In
such cases, end-users' active participation in the early stages is inevitable. From this angle, the scenario of participatory design depends on end-users' socio-economic status affecting their exclusive level of needs. Therefore, the multidimensional participatory design would be changeable based on housing types, end-users' availability, and their socio-cultural and economic status.

5.0 Conclusions
Participation is a necessary action in improving "sense of home" in mass housing. Since full participation in the modern days mass housing is impossible, developing suitable participatory methodology maximizes the advantages and benefits of partial participation. In this regard, this paper explains the application area of the different participatory modes/levels in association with the characteristics of the different motivations. Different motivations enjoy different levels of readability or possibility/necessity of representation. Accordingly, the primary levels of needs are relatively content-specific and concrete while the higher levels are quite subjective, abstract, complicated, and multidimensional. Through these differences, it would be possible to find out interrelationships between end-users' motivational tendencies and different participatory modes, which is essential in developing a suitable participatory methodology for mass housing. In general, the framework of this study makes it possible to systematically enhance the implementation of the different participatory modes/levels at various stages of housing delivery.

In conclusion, unlike content-specific needs, subjective and abstract motivations are quite difficult to be represented by housing decision makers; hence, end-users active and direct participation is inevitable. Accordingly, the implementation of a multidimensional participatory methodology, i.e. indirect, direct, active, and even passive participation in different stages of housing delivery increases the possibility of meeting end-users' different needs. Meeting end-users' needs improves spatial personalization enhancing "sense of home" in mass housing.

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