Residential Satisfaction: Literature Review and A Conceptual Framework

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Abstract. Residential satisfaction, defined as the feeling of contentment when one has or achieves what one needs or desires in a house, is an important indicator for the planners, architects, developers and policy makers use it in several ways. There are three theories related to residential satisfaction which are housing needs theory, housing deficit theory and psychological construct theory, and most empirical studies have used these theories or a combination of these theories in their research design. Several variables representing housing and neighbourhood characteristics, socio-demographic attributes as well as their perceptions of housing and neighbourhood conditions have been analysed to indicate that further studies are required until a general theory of residential satisfaction or dissatisfaction occurs. Variables which are significant that influences on the level of residential satisfaction or dissatisfaction are vary according to the objectives of the study. This indicates that further studies on residential satisfaction can be carrying out on case specific context in guiding the housing policies.

1. Introduction
Measuring residential satisfaction is very complicated as it is very subjective to the particular place, time, purpose of evaluation and involvement various range of people [1]. There are a lot of studies on residential satisfaction which have came out with varies of result. Studies on residential satisfaction have become an important indicator for various people such as architects, policy makers and developers. The concept of residential satisfaction has been used in at least four different ways [2]. The first is that it has been used as a key predictor of individuals’ perceptions of general which is quality of life. Second, it has been used as an ad hoc evaluative measure for judging the success of housing developments constructed by the private sector and the public sector. The third is, it has been used as an indicator of initial state of residential mobility and, hence, altered housing demands and neighbourhood change. And the last is, it has been used to assess residents’ perceptions of insufficiencies in their current housing environment. Thus, it is very important to understand the concept of residential satisfaction in order to gain the proper information. The aim of this paper is to provide an overview of residential satisfaction as well as a conceptual framework for residential satisfaction. This paper addresses two main objectives to create a conceptual framework.

a. To explore the concept of residential satisfaction
b. To determine the variables involved in residential satisfaction study

2. Theories related to Residential Satisfaction
The term of residential satisfaction is very wide used in research all around the globe. This is very significant indicator used by the people in the development industries as well as researchers. There are several theories which are related to residential satisfaction such as housing needs theories [3], housing deficit theories [4] and psychological construct theory [2]. The first theory, housing need theories was first introduced by [3]
which stated that there are different levels of life cycle and the evolution through these levels makes households become uncomfortable. Households showed this discomfort through migration to other places. According to Maslow’s hierarchy of needs, there are five stages. These stages are physiological needs, safety needs, belongingness and love need, esteem needs, and the need for self-actualization. It is very important to satisfy a person's basic need for developing a person's potentiality and capability in a society.

Housing deficit is generally defined as lack of houses accommodated for the population. But according to the [4], conception of the housing deficit theory is the lack of house condition itself. People assess their own housing by compare to others. Differences in the housing conditions makes their house became housing deficit. Resulted from this situation, people keen to do adjustment on their house. As for the psychological theory, this theory is more to the physical aspect of the houses. Situation of the residential influence people to compare with others and people will have the feeling of satisfaction or dissatisfaction [2]. Dissatisfaction of the physical condition of the residential may lead to house modification. These show that the residential satisfaction research must be studied further as the result for each residence may vary.

3. Residential Satisfaction

In the previous researches, the term of residential satisfaction or housing satisfaction should be separated the word as Housing and Satisfaction and define them apart. Housing is a composite of the total physical and social parts that makeup the housing system. Housing also is a multidimensional phenomenon that includes structural type, tenure, location and political jurisdiction [5]. As for the word Satisfaction, it is a process of evaluation between what was gained or received and what was expected. It also can be accurately elaborate as the perceived discrepancy between objective and accomplishment. Satisfaction was not only about the physical aspect but also by the ability to form social networks and it is subjective reaction to an objective environment [5]. The housing’s character that is multifaceted makes assessment of the housing more complicated. Nevertheless, the single-facet can’t provide adequate information related to other areas of housing to housing quality [6].

Residential satisfaction is defined as the feeling of contentment when one has or achieved what one needs or desires in a house [5]. Residential satisfaction can also be defined as indicator of homeowners’ view of the general quality of their life and it can be mean that an individual’s expectation of housing is met [7]. Residential satisfaction is the descriptions of the quality of life of the inhabitants of a determinate residential environment and act as trigger factor affecting residential mobility [8].

4. Empirical Studies of Residential Satisfaction

There are various researches of empirical studies on the residential satisfaction that have been done by the professionals and experts especially research on the characteristic of the users. To achieve the aims of the different studies, there are several instruments that will be in the questionnaire on residential satisfaction [8]. The general characteristics are divided into four sections which are to obtain perceived environmental quality indices, to determine the subjects’ satisfaction with their residential environment, to collect the social demographic and personal characteristics and the last part is about behavioural aspect and questions on individuals in their residential environment. The factors as neighbourhood and housing conditions, physical and mental health, and socioeconomic conditions such as economic outcomes and social contact are included in research [9]. On the other hand, to measure residential satisfaction through factors concerning the placement of the neighbourhood environment surrounding housing, along with surrounding conditions such as “Safety and walkability,” “Access to destinations,” “Social network,” and “Travel network” [10].

A research which summarized the empirical studies on residential satisfaction at cross-cultural level [5] was based on the research [8] which consists of four parts which are socio-demographic characteristics, housing characteristics, neighbourhood characteristic and behavioural characteristics. There are also other researchers which defined the socio-demographic factors which is relevant to the study. Another study
shows that building quality, owners' culture of maintenance, social, neighbourhood, management, and dwelling unit features significantly predict students' satisfaction in public halls of residence, using Takoradi Technical University as a case study [11]. Which they add one more of variables that is owners’ culture of maintenance in their study to relate its significance to the residential satisfaction.

4.1 Social Demographic Characteristic
Education appears to be insignificant effects in housing satisfaction [12]. However, other studies stated that the education level of the affecting the residential satisfaction level [13,14]. This statement also supported by the statement of another study [15] where there is positive relationship has been found between housing satisfaction and age, income, education and job status. Important factors also belong to residents’ characteristic such as age, income, duration of residence and ownership of house [12]. Some researchers [12,16] stated that age give a positive affect on residential satisfaction where older people tend to be more satisfaction with their dwelling than younger people.

Previous study reported that higher income enables household to move to a suitable house in a attractive neighbourhood which may give higher level of satisfaction [17]. This statement supported by the works by other study [12] where the higher income households are generally satisfied with their housing. Employment sector and household size significance to the residential satisfaction level [14].

In this part, it was stated that the finding is mainly about the residents’ characteristics including age, income, duration of residence, house ownership, household type, and the impact of residents’ satisfaction variously, positively or negatively [5]. But the finding between residential satisfaction and residents’ characteristics is not conclusive. Analysis done by other study shows that socio-demographic characteristic which are size of household, duration of residence, type of tenure is positively correlated to overall residential satisfaction [18].

4.2 Housing Characteristic
Housing characteristics were more important than demographic characteristic was mentioned in a study [19]. It shows that building features such as number of bedrooms, size and location of kitchen and quality of housing units are strongly related to residential satisfaction [20]. Structural indicator of housing is a significant factor affecting housing satisfaction was found in previous researches [21]. The indicators involved include physical characteristic of housing such as laundry and washing area, kitchen space, size of living area and dining area, number and level of sockets, number of bedrooms and bathrooms, other aspect of housing such as housing quality, privacy and housing services provided by developers such as safety and ventilation of the house.

Physical characteristic of the housing as comfort, quality of building, housing plan and size of the house are significance in measuring the higher level of residential satisfaction [22]. This is supported by other study which summarized that the housing characteristic such as number of bed rooms and toilets, size and location of kitchen, living room, quality of housing unit affect the residential satisfaction differently at cross-cultural levels [5].
4.3 Neighbourhood Characteristic

A study was stated that neighbourhood satisfaction is an important predictor of residential satisfaction [5]. Most of the neighbourhood dissatisfied because of the higher distance travelled for school, work, shopping and medical centres. The elements of the neighbourhood such as safety from crimes and accidents are positively linked with residential satisfaction. It is concluded that the residential satisfaction does not only rely on the housing unit only but also the neighbourhood.

Previously, a study reported that a family evaluates a neighbourhood based on the normative criteria which are area should be predominately residential, accessibility to quality school, quality of streets and roads and homogeneity regarding social class, race and ethnic group [23]. Therefore, it is emphasized that neighbourhood satisfaction has been shown to be an essential predictor to housing satisfaction [12]. Accessibility to the public transportation, community and shopping facilities and physical environment variables has also been recorded as factors of neighbourhood satisfactions [24].

A study found that the issue of safety from accidents as a factor of housing satisfaction was considered [25]. This is supported by another study where it is stated that level of crime or lack of amenity or industrial development or location of workplace, are probably to be contributors of neighbourhood dissatisfaction [26]. Therefore, it was concluded that residential satisfaction does not only rely on the housing units itself, but neighbourhood plays an important role in residential satisfaction [21].

4.4 Behavioral Characteristic of Residents

Behavioural characteristic of residents or ‘Housing adjustment and adaptation’ as conceptualized in a study are the family’s effort to redress the discrepancies between the housing it has and the housing it and others feel they should have [27]. Housing adjustment is a process that may occur when a family experiences a normative deficit that causes a significant reduction in housing satisfaction. In their study, they also pointed out that residential alterations and additions consists of two main situation which are increases in the amount of space or number of rooms in housing unit and improvements in the quality of the housing unit.

Behavioural characteristic of the residents reflects their feelings about their residential satisfaction and dissatisfaction [5]. The residents react differently with their housing dissatisfaction. They may be adapting with the situation of their housing unit, or they may be done some modification at the certain part of their housing unit, or it may lead to migration. It is all depend on the level of their dissatisfaction or the ability of relocation.

The new attribute has been included in a study which is owners’ culture of maintenance. It was found that this attribute to be significant together with existing residential attributes. Significant of attributes in the study according to the rank is start with building quality feature and followed by owners’ culture maintenance, social feature, neighbourhood feature, management feature and dwelling unit feature [11].

There are four (4) characteristic from the finding of residential satisfaction which are socio-demographic characteristics of residents, housing characteristics, neighbourhood characteristics and behavioural characteristics of residents [5]. The table below concluded the variables involved in residential satisfaction studies.
Table 1. Components of Residential Satisfactions.

| Components of Residential Satisfaction | Determinants | Elements (varies according to objective of study) |
|----------------------------------------|--------------|--------------------------------------------------|
| Socio-demographic characteristic       | Demographic of residents | Age, gender, marital status, income, duration of residence, tenure status, race, education, household size, job status etc. |
|                                        | Socioeconomic of residents |                                           |
| Housing and ancillary characteristic   | Physical characteristic | Number of rooms and sockets, size of rooms, dining, kitchen, and living, dry area, quality of house, toilet/bathroom, ventilation, parking, corridor, staircase etc. |
|                                        | Support services          |                                           |
|                                        | Management factors       |                                           |
|                                        | Building quality features |                                           |
| Neighbourhood characteristic           | Neighbourhood facilities  | Accessibility, safety and security, infrastructure, privacy, urban activity and noise, neighbours’ relationship etc. |
|                                        | Social environment        |                                           |
|                                        | Public facilities         |                                           |
| Behavioural characteristic             | Residents behavioural towards residential | Mobility, modification, adjustment, adaptation, maintenance culture |

It shows that, the studies which involve different types of housing, tenures, case study, and culture have different effects on the level of residential satisfaction and the significant of the variables in the study. The use of elements is not fixed to a certain number, but it is may be adjustable according to the objectives of the studies. Case specific situations is suitable in indicating that further studies are required to determine residential satisfaction to guide public policies [28].
5. Conceptual Framework of Residential Satisfaction

Indicator framework of residential satisfaction has multi-faceted [5]. This multi-faceted involved six (6) components which are socio-demographic characteristics, physical features of the house, housing support services, public facilities, neighbourhood facilities and social environment.

![Multi-faceted Framework for Residential Satisfaction](image)

*Figure 1. Multi-faceted Framework for Residential Satisfaction. [5]*

The determinants and variables involved in residential satisfaction have been discussed earlier. Based on the exploration on the current studies on residential satisfaction, this study is proposing a conceptual framework of residential satisfaction.
Figure 2. Components and Determinants of Residential Satisfaction. (Researchers, 2019)

Figure above is the conceptual framework of residential satisfaction. This conceptual framework was developed by adapting the indicator framework developed in previous study by [5]. There are six (6) components in their studies. But, in this study, it has been reduced to four (4) and included the determinants of the components that refer to the previous studies.

6. Conclusion
Residential satisfaction is a very wide study where it can be adapted in various cases. Study on residential satisfaction may varies in terms of places, people, culture and most important is the housing itself. All this study will be resulted in different level of satisfaction according to the objective of the study. Nevertheless, residential satisfaction is very complicated construct because of three reasons [3]. The first is because it has two terms which are residential and satisfaction. Secondly is because it involved three (3) different processes which are cognitive, affective and behavioural. And the last reason is because the measurement of the residential satisfaction is based on those three (3) processes. This study indicates that further studies on residential satisfaction can be carrying out on case specific context in guiding the housing policies.
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