



## QUEST FOR HOUSING USERS SATISFACTION IN THE CONTEXT OF MODERN TREND FOR GLOBAL HOUSING SCHEME

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### ABSTRACT

Housing sector in the context of modern economy is facing a period of considerable structural and cultural transformation based on the different demand of the occupants, with dynamic investment engulf with large-scale regulatory overhauls as driven by scenarios of capital market orientations. Realistically, most of the 20<sup>th</sup> century housing design and construction have entirely exhibited architectural innovations compare to the era before the period of time. Generally, there is quest for global advancement in technologies of deferent sorts, and then same technological revolution is expected in building industry. Therefore, the majority of architectural design behind modern buildings and homes are tailored towards being conform to family, cultural and community living norms purposely to enhance users' satisfaction. In consequence, this paper presents the imperatives of housing users' satisfaction and discuss some parameters with potential influence on housing users' satisfaction in the context of modern housing structures.

**Keywords:** architectural innovations, market orientations, cultural norms, users satisfaction.

### 1. INTRODUCTION

Presently, global housing scheme is advocating for drastic shifting in housing hypothesis and socio-physical tradition. Majority of people prefer to live in urban environment because of the availability of social facilities for healthy living. Undoubtedly, bad housing has impact on the livelihood of people irrespective of age. In furtherance, currently, while some people are homeless others live in substandard houses in different part of the world hence it can be said that housing crisis is one of the challenges confronting human societies especially in developing countries. Poor housing approach gives rise to poor living conditions which could thereby jeopardize the ability of people to escape a poverty trend. Therefore, to sustain and promote the need for accessible and affordable housing becomes increasingly important for housing user's satisfaction must be taken into cognizance. Reliable global housing approaches could unlock direct opportunities towards decreasing housing crisis being faced by many countries in the world.

Buildings generally fall into two sectored categories which are residential and commercial [1]. Regardless of the sector a building belongs; a focal issue of importance during the design of building should take into consideration the users of the building. Current vast demand for people to live in urban areas has imposed an enormous pressure on housing property developers to optimize users' desire for comfort. A fact exist that this spatial need is difficult to be compromised as related to global environmental development. From time to time, building designers bring different kind of innovations into the sector to appeal housing users architecturally. An obvious example is that presently, the function of a roof has been stretched from a simple protecting facet from weather to a system integrating sustainable building technologies such as solar energy collector and rainwater collection [2] and greening of housing roof top [3].

Housing users' satisfaction principally involves maintaining comfort conditions and requirement in indoors environment [4]. To achieve this, a scheme of building design up to the level of construction should give priority to the demand of the occupants. Therefore, it can be said that satisfaction in building is achieved when the housing situation is conform to family, cultural and community living norms. Thus, this paper presents the imperatives of housing users' satisfaction and discuss some parameters with the potential to influence on housing users' satisfaction in the context of modern housing structures.

### 2. MODERN BUILDING ARCHITECTURAL DESIGN CONCEPT

The fundamental difference between buildings in older centuries and that of modern twenty first century buildings is based on the design, construction and installation of new facilities. However, emerging building policies also contributed to the making of modern buildings to appease the mind of users with high level comfort. Modern building is the evolution of modern architecture in design and construction of buildings connecting the internal building environment with the external landscape design. In this case, modern building architecture is distinguished by transformation of building pattern in the form applied architectural decorations in line with the pace of global technological advancement. The concept of modern building architectural design had brought into focus another important concept known as architectural modernism. Architectural modernism has stimulated high level of influx of architectural educators and designers for handling complex building projects like corporate and institutional structures. The achievements regarding the design and construction of modern buildings was actually becoming prominent in the 20<sup>th</sup> century. In this era of time, building designs in the world were



migrating from soaring skyscrapers to spectacular innovations accommodating engineering designs.

### 3. HOUSING USERS' SATISFACTION IN THE CONTEXT OF GLOBAL HOUSING SCHEME

Housing for people symbolizes a significant element in the social and economic structures in addition to serving as one of the basic human needs of all nations [5]. Provision of housing facilities is to provide shelters to individuals for their social interactions among other indoor human activities. In global housing context, several housing schemes have evolved from time to time as embark by government and private organizations but depending on change in cultural heritage and taste of individuals. Most problems encountered in housing schemes are usually in consonance with houses for public servants because they usually occupy houses designed and constructed under mass production with constricted opportunity for satisfaction.

Several research literatures concerning global housing scheme have been published in recent time. In the work authored by reference [6], satisfaction is said to be predicator of human behaviour. In furtherance, Francescato and others conceive satisfaction as a function of different categories of variables: the objective characteristics of the residents, objective characteristics of the housing environments, and the occupants' perception and beliefs about the aspects of their housing environment which are the physical environment, the housing management, and the other residents [7]. Marans and Sprecklemeyer's [8] model recognizes the physical environment by indicating that objective attributes of the particular environment have an influence upon a person's satisfaction through the person's perception and assessments.

Further, it also states that a person's behaviour is influenced by satisfaction, the perception and assessments of the objective environmental attributes, and the objective attributes of the environment itself [8]. Residential satisfaction involve different kind of issues like physical environment indicating the overall physical attractiveness of the neighbourhood, environmental waste collection systems, level of street maintenance, car park, traffic in the neighbourhood and easy access to public service. The factors mentioned above are in addition to the subject of overall evaluation of perceived room size as they vary slightly for different room sizes [9]. Room shape also influences the perception of room size [10]. Pennartz stated that the size, shape, level of enclosure and

arrangements of rooms were also found to have an effect on the experience of the 'atmosphere' of the home [11]. Services issues such as health, education, ability to communicate easily, recreation facilities, market, gymnastic centre, police post, and nearness to fire protection service, proximity to entertainment centres and accessibility to basic supplies for increase welfare are important for deriving greater satisfaction with a community. Cultural and social relationship with neighbours and cross-cultural understanding of people living together is important within the same neighbourhood. Importantly, economic connected concerns such as availability of employment, sustainability of business, and well-being investment potential and overall economic state of affairs are among the factors that could bring residential satisfaction to occupants of neighbourhood. A combination of these factors play crucial role in the experience of individual for residential satisfaction.

### 4. HOUSING USERS' SATISFACTION

Housing users' satisfactions have many important concepts and they have been discussed in several literatures related to post occupancy behaviours by the application of questionnaire and statistical analysis using varieties of software packages. Nevertheless, some of the infrequently mentioned parameters are examine below.

#### 4.1. Sustainability of the facilities in building

The concept of sustainability in building involves integral aspects such as the overall structure of the building itself. Housing structure is the entire layout of building. From time to time the structure of housing construction could be influenced by lifestyle, culture, level of education, level of income and socio-economic prosperity even imitation of foreign architecture like western architectural techniques. From the perspective of education and income level drive, most urban residents are well educated and perhaps appreciate occupying buildings containing necessary facilities. More to the point, high income individuals tend towards occupying luxurious buildings apartment with all the facilities capable of ensuring sustainability. The subject of sustainability as revealed in Figure-1 clarifies how the various essential parameters starting from the energy source accessibility to the maximization of energy efficiency in buildings are interconnected by way of technological, socio-economic, environmental and cost-effective measures.



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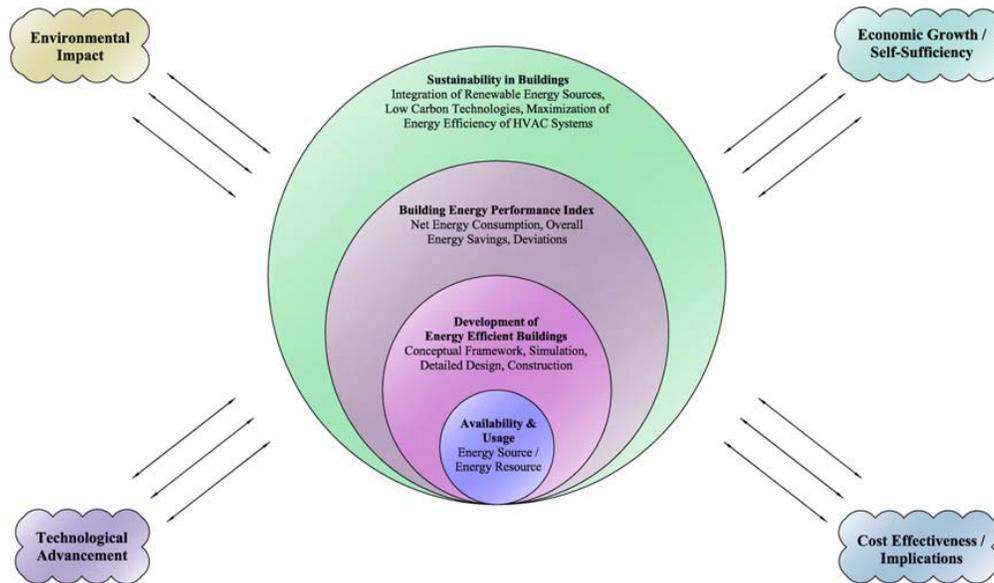


Figure-1. Sustainability chart for the development of energy efficient buildings [4].

Additionally, effective integration and planning of energy resources into building structure is fast becoming a very imperative aspect of modern building scheme. The existence of varieties of options towards energy usage and application in buildings is shown in Figure-2. This comprises of the uses of renewable and non-renewable energy sources. Energy development in

buildings is a very significant aspect of modern building. Cost of energy development as integrated into buildings could add reasonably to the total cost of building development. The energy-cost savings potential experienced from the building over time usually lessens the effects stimulated by the original costs [12-20].

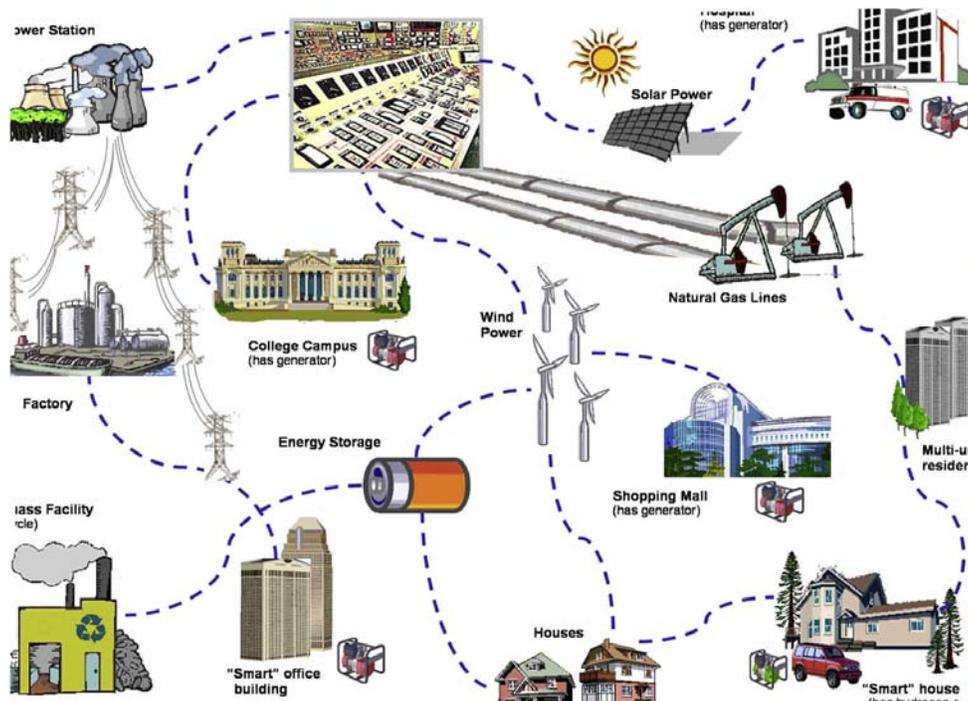


Figure-2. Energy infrastructures: agile communities. The Conventional power central grid and on-site power systems [21].

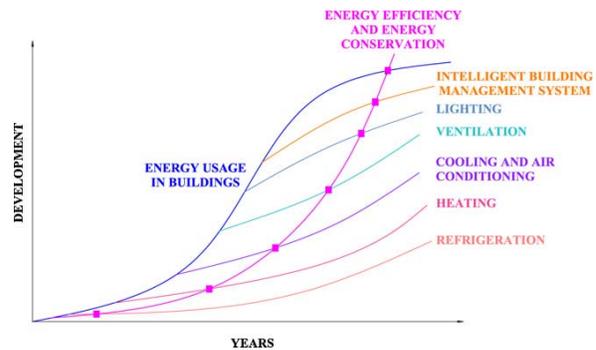


#### 4.2. Features in building

In today housing occupancy issues residential mobility is an issue of great concern because of inadequate space for suitable privacy and social interaction of the occupants. In some part of the world especially in developing countries the planning and construction stages of public buildings do not adequately address the challenges of space usage among the residents of building as related to family size, culture, religious and family lifestyle. With respect to this problem, many users of public buildings are prone to dissatisfaction with the features presented in the buildings especially for the low and middle income earners. In this case facilities usage become overstretched due to sharing among family members, relatives and friends alike hence people may be compelled to live in crowded conditions due to low incidence of residential mobility in developing countries. Summarily, in modern perspective, housing users are getting more conscious of quality issues in housing environments [22-23].

#### 4.3. Installation, application and maintenance of new and emerging technologies

The improvement of key engineering endeavours related to the vital aspects of building facilities and energy consumption with respect to increase in a period of time is graphically illustrated in Figure-3. The range of techniques addressing building occupant satisfaction requirements in terms of sustaining good thermal environment, improved indoor air quality, brilliant illumination systems among other basic requirements pertaining to energy application materializes from the S-shaped baseline of energy usage [4]. At present, varieties of science of protection and comfort facilities in building exist. Though, general protection has evolved considerably over the past years. Protection systems especially security gadgets are installed, used and maintained in buildings especially in urban districts. Likewise, in rural villages, new technologies are also welcomed to help building occupants meet their basic requirement such as waste disposal, electrical energy consumption and water treatment. From another perspective, housing users would like a situation where they have basic knowledge which is sufficient for handling technical problems relating to upkeep of the equipment providing services. Anxieties could be spurred in a situation where a breakdown occur and the impact of the equipment on livelihood becoming borings. Therefore, the purpose of seeking for knowledge on repair and maintenance on any technical facilities used in neighbourhood is to reduce the frequency of breakdowns by regularly monitoring by means of repair and maintenance.



**Figure-3.** Technological development of engineering fields related to building energy usage over years [4].

#### 4.4. Neighbourhood and location of buildings

Housing users' satisfaction could be highly affected by neighbourhood and location of buildings. According to the research conducted by author in reference [24] revealed that residents in existing public buildings are not usually satisfied with their housing due to lack of basic amenities such as healthcare facilities, schools, police posts, public transportation systems, worshiping centres and shopping mall in their neighbourhoods. In addition, residential satisfaction also can be understood from the feelings of residents about their accessibility to essential facilities and services. By extension, cleanliness, safety and pleasant feelings with neighbours are another important aspect of housing users' satisfaction.

#### 4.5. Spatial adequacy and adaptability in residential satisfaction

Spatial adequacy and housing adaptability in residential satisfaction are directly related concepts in housing evaluation. Satisfaction could be referred to as a condition for assessing the value of the residential location by evaluating the effect of perception of the intent environment upon satisfaction by potential individual occupant. Many research works have concentrated attention on the spatial behaviours of housing users especially on the mechanisms affecting the perception of the occupants. Fundamentally, the aim of spatial behaviour is to meet requirements, and changing/adapting behaviour occurs when there is need to change the existing unsatisfactory circumstances [25]. There are two different views with reference to the adaptation of the environment: the more changes in the environment, the more suitable the environment will become [26], and too many adaptations made in the environment indicate that the environment is far from being satisfactory for the requirements [27]. In accordance to the theory states by Rabanec, potential for adaptability without physical changes is a more suitable approach and also observes that the likelihood for a change in residential buildings is higher not in requisites to activities, but in stipulations of locations and interrelations of conventional activities [28].



## 5. CONCLUSIONS

Undoubtedly, modern architectural design revolutionized the logic of building design and the way human think of building designs. The several innovations in the way buildings are design especially in 20<sup>th</sup> century compare to the era before the time has indeed brought about a new lease of human perspective in relation to desire comfort and hence housing occupancy satisfaction. By analysis, housing users' satisfaction is influence by multiple factors. They include residents' cultural and social norms, space and size, economic factor, spatial adequacy and adaptability, building locations, sustainable modern facilities, etc. Subsequently, the recognition and proper understanding of each and every one of the factors influencing users' satisfaction is a very paramount issue so that design and construction to be carried out conform to a greater percentage of satisfaction of the intended occupants. Finally, in line with the accelerated changes in the global context for housing, most post-housing activities are carried out with the help of modern energy integrated into building and therefore, there is strong need to conduct research studies towards addressing issues related to energy integration in building for users' housing satisfaction and environmental sustainability.

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