International Research Journal of Engineering and Technology (IRJET) e-ISSN: 2395-0056
Volume: 07 Issue: 09 | Sep 2020 www.irjet.net p-ISSN: 2395-0072

FACTORS AND ATTRIBUTES AFFECTING RESIDENTS SATISFACTION TOWARDS THE QUALITY AND AMENITIES OF RESIDENTIAL BUILDING

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Abstract- *An apartment is a basic need and a primary unit of human habitation, and in most cases it represents the largest investment of someone's life. So it is necessary to continuously evaluate the housing amenities and quality of apartments in Amravati City .Various factors affecting customers service satisfaction such as sizes of rooms, quality, security, fire safety etc. This can be improving only when we connect directly to flat owners. The main objective of this paper is to identify the major problems of owners and how can we reduce it by proper method.*

Key Words: Customer satisfaction, Residential Apartments,.

1. INTRODUCTION

An apartment is one of the most basic human needs. It is the first unit of a society and the primary unit of human habitation. For most people, an apartment represents the largest investment of their life. In general, housing is one of the major components of the social and economic development of a society, and a result of multiple social, economic, and physical processes that involve issues of location, construction quality, cost, long-term financing, and household preferences.

In recent decades, modern lifestyles and housing needs have dramatically changed as a result of various social factors: changes in perceptions of the traditional family and the degree of independence within a family, the replacement of private living spaces with various other amenities, the conversion of living spaces in the pursuit of multi-functionality, increased mobility, and new information technologies that affected globalization and overall individualization. Changes in housing needs have made necessary the constant assessment of housing quality so that it always meets the needs of its users. Housing quality is a broad term that encompasses many aspects and has both an objective and a subjective dimension. The objective dimension consists of many aspects of particular significance; examples include dwelling type, number of rooms, presence of facilities, and the condition of the dwelling. The subjective dimension includes user characteristics that lead to specific needs, desires, and expectations. In short, housing quality criteria include housing conditions such as the characteristics or properties of a physical environment and the characteristics of its user Housing satisfaction may be defined as the "perceived gap between a respondent's needs and aspirations and the reality of the current residential context." Housing satisfaction is also defined as the experience of pleasure or gratification derived from living in a specific place. User satisfaction is the most important measure of housing quality: the higher the quality of the apartment the higher the expected satisfaction of its user.

RathodPiyush, Dr. Rajiv Bhatt, Dr.JayeshPitroda(2016)Customer satisfaction is very essential for the construction industry for Residential projects. In India, the real estate sector is passing through a tough period. The construction industry needs to understand the needs of residents to continuously improve their products. This paper focuses on the analysis of satisfaction factors of customers of Residential flats in cities like Surat and Ahmedabad Gujarat region of India. A customer may be defined as the owner of the project and the one that needs the constructed facility. In simple terms, the customer is the buyer of the product or service. Various factors affecting customer service satisfaction, It was found that flat owners in these unsatisfied with the facilities. We find the satisfaction and dissatisfaction factor from the flat owner.

Dietz and Haurin (2003) provide a literature review on various important social and economic benefits of homeownership. They highlight fundamental differences in the behavior of homeowners and related agencies, but emphasize the need for further research, using more advanced econometric methods. Overall, however, the limited empirical evidence indicates a positive relationship between homeownership and life satisfaction.

Ukoha, O. (1997) found that satisfaction is based on the services provided by the construction company. The satisfaction level also depends on some economic factors like an economic benefit, improvement in the quality of life, planning, and environmental issues.

Carolyn, S.T. (1998) suggests that customers show their frustration and dissatisfaction and take harsh actions like legal actions against the developers due to some reasons like take a long time to handover the project, not fulfilled promises, and poor services.

Kundu, A., Bagchi, S., and Kundu, D. (1999) have pointed out that a low figure for the percentage of households having an amenity in a state does not necessarily reflect non-availability of that amenity or the extent of its deprivation, it could be partially attributed to natural, social and cultural factors.

2. FACTORS AFFECT CUSTOMERS SATISFACTION IN A RESIDENTIAL APARTMENT BUILDING IN AMRAVATI CITY

To properly identify the criteria of satisfaction of the residents living in the apartments, we have to study different literature which includes research papers, thesis, and case studies. To identify the factor affecting customer satisfaction we have pointed out some of the different components of the building attributes.

- Power Backup

The uninterrupted power supply is must for a peace, it is hence important that the residential complex is equipped with a reliable power back up system.

- Car Parking

Parking space is a major issue in a myriad of housing complexes. So, make sure you have a dedicated parking space for your vehicle.

- Sports and Recreation

Having the option of relaxing with a quick game of tennis within your housing complex can do wonders for your soul. Hence, check out for the recreational facility that the complex offers.

- Senior Citizens

Many projects are specially equipped with aids for senior citizens like ramps, benches, and other safety features. This consideration is important if you have a senior citizen living with you.

- Security system

Ensure that your builder offers security features like CCTV cameras, firefighting systems, and intercom facilities. The complex should also have 24/7 security guards all around the complex.

- Eco-Friendly

Various builders encourage the use of eco-friendly amenities like rainwater harvesting and solar panels. Who knew buying your dream house could also help you save nature?

- On-Site Maintenance

A sudden leakage can do serious damage to your apartment. An on-site maintenance department can help you take action in no time.

- Water supply

Water is one of the basic amenities and your builder should ensure proper water supply.Water supply is a provision to deliver Water to consumers with appropriate quality, quantity, and pressure by public utilities, commercial organizations, community endeavors, or by individuals, usually via a system of pumps and pipes. Water quality should not get deteriorated in the distribution pipes. It should be capable of supplying water at all the intended places with sufficient pressure head. It should be capable of supplying the requisite amount of water during firefighting. The layout should be such that no consumer would be without water supply, during the repair of any section of the system. All the distribution pipes should be preferably laid one meter away or above the sewer lines. It should be fairly water-tight as to keep losses due to leakage to the minimum.

- Gym and spa

Who does not want to unwind with a quick work out in the evening or a spa break on the weekend? These are some amenities that can significantly add to the quality of life.

- Locality

The residential complex you choose must be close to basic facilities like hospitals, schools, and markets.

- Types of materials used in the construction building

Building material is any material used for construction purposes such as materials for house building. Wood, cement, aggregates, metals, bricks, concrete, clay are the most common type of building material used in construction. The choice of these is based on their cost-effectiveness for building projects.

- Design of building

The building design is critical to protect the structure and interior of a house from the outside weather elements while maintaining a comfortable atmosphere inside in an energy-efficient manner. House wraps, building envelopes, and barrier

films, collectively referred to as weather-resistive barriers (WRBs), are employed to protect a building from intrusion by water and air by forming a protective envelope around it.

- Sizes of rooms in the building

Minimum heights and size standards for rooms ensure that there is good ventilation, lights, and comfortable living inside the room. Height and size standards for rooms vary from one country to another and are mostly based on the preference of clients to meet their demand.

- Protection against Noise in the building

Building design and construction professionals need to consider environmental noise pollution along with all other acoustical needs early in the project planning process. Governments recognize the negative impact that external noise can have, and have created regulations to limit its impact. So what can you do? By considering the various sources of noise and the potential paths for sound to travel into a building, and then selecting the right design, construction assemblies, and materials to mitigate that noise, in an increasingly busy world you can create spaces that deliver occupant comfort.

- Quality of natural lighting in bedrooms

Scientific research has proven that people subconsciously seek out sunlit places and enjoy spending time in natural light. Research has also proven that there are real benefits associated with spending time in spaces that offer abundant natural light. The benefits of natural lighting are numerous and can affect a person's health, the environment, and energy usage.

3. ATTRIBUTES FOR BUILDING PERFORMANCE EVALUATION

In the present study, a literature survey was carried out to identify the attributes that indicate user satisfaction with building performance. Initially, 56 attributes were identified which were reduced to 29 after closely scrutinizing these attributes concerning the purpose of evaluation. A list of these attributes was discussed with construction industry experts comprising of architects, engineers, consultants, and academicians. These interactions helped the researcher to check on adequacy and appropriateness of the attributes for building performance evaluation. Based on eighteen responses received, the authors have compiled a list of 13 attributes (Table 3.1). These attributes are selected in a way to avoid any overlap of characteristics and to have a reasonable number of attributes. A cryptic mention of aspects covered by each attribute is also made against each.

Table 3.1. Attributes for building performance evaluation.

Sr. No.	**Attributes**	**Aspects/characteristics**
1	Physical condition	Building integrity such as cracks, leakage, seepage, dampness.
2	Space	Size/organization of rooms, Common areas, open spaces, etc.
3	Indoor air	Ventilation/air conditioning for thermal comfort
4	Illumination	For adequacy and visual comfort
5	Safety and security	Against fire, lightning, accidents, infections, insects and crime level
6	Accessibility	Connectivity, internal roads, staircases, lifts, escalators
7	Air, Noise, and water	Quality of air, water, and noise
8	Waste disposal	Including garbage collection and disposal
9	Drainage	Rainwater, sewage, and sullage
10	Finishes	Internal and external finishes
11	Amenities	Drinking water, washrooms, water and electricity supply, etc.
12	Aesthetics	Including landscaping, visual comfort, psychological comfort.
13	Parking	Location and adequacy

3.1. Characteristics of Attributes

Review of question formats as brought out in section 'Question formats' indicates that the design of questions might not elicit the exact response from the users that the researchers were looking for. The questions were designed based on the attributes and due to the manner in framing the questions, the respondent may not truly perceive what the researcher might be meaning about the attribute, leaving it to the imagination of the participant to respond. Ultimately, the response of the user may be subjective or arbitrary. Collected data may also not be amenable for further analysis and interpretation.

There is a requirement to put across questions in a manner that any participant in the survey, irrespective of background, understands the requirement of the researcher and offers objective feedback, though the rating of users may vary depending on their expectations which may, in turn, vary based on their social, economic, educational, financial background, etc. The

researcher can ensure to convey what kind of response is expected, through an adequate description of each attribute. As an example, characteristics of illumination as identified through the literature survey are listed in Table 3.2.

Table 3.2. Illumination characteristics and their description.

Characteristic	**Description**
Safety	Promotes safety of occupants during movement
Control	Has easily accessible control to both natural and artificial lighting
Lighting type	Provides for natural lighting
Appearance	Improves the appearance of the area
Maintenance	Facilitates easy access and handling for maintenance

The characteristics of illumination listed in Table 3.2 amply cover all aspects of illumination that a user looks for. The characteristics and their descriptions were identified through a literature review of the relevant theoretical content of illumination. Similarly, characteristics and description of safety and security were identified and tabulated in a manner it covers all aspects of safety that a user looks for in a building in Table 3.3.

Table 3.3. Safety and security characteristics and description.

Sr. no.	**Characteristic**	**Description**
1	Physical safety	Provides safety against accidents due to falling, tripping, etc.
2	Fire safety	With adequate fire extinguishers, water sprinklers, fire alarms, etc. Placed at prominently visible places for access Have signboards indicating the location of equipment, fire exits With passages and fire exits free of obstructions Sufficient ventilation to avoid choking due to smoke during a fire With adequate water supply dedicated to fire fighting
3	Electric safety	Against electrical accidents due to loose fittings, wires, etc.
4	Disinsection	Protects from insects in the form of mosquito proofing, Fumigation, etc.
5	Disaster safety	Against earthquakes, floods, lightning, etc.
6	Parking safety	Provides safety to the vehicles parked in the parking area
7	Security	Against theft, burglary, the crime rate in the area, etc.

4. CONCLUSION

After studying various literatures it was observe that there are several type of satisfaction or dissatisfaction which are discuss in the paper. This research has raised questions about the factors and attributes and we classify the problems according to the

type of condition of building and after that we can plan to reduce the problems of owners on the construction project. The problem such as security, sizes of rooms, safety, fire safety, maintenance etc, also the main indicators of poor functional quality are the lack of places to park cars, the too close proximity of neighbouring buildings, the lack of green areas, poor courtyard infrastructure, poor accessibility, unfinished construction nearby, and poor layouts of dwellings are studied in detail from which we came to know that if there is any problems in construction project we can classify that properly and manage the construction project.

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