



## INHABITANT'S VIEW ON APARTMENT BUILDINGS WORLDWIDE

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### ABSTRACT

Numerous professionals, including scientists, medical professionals, planners, biologists, and architects, started looking into the connections between physical environment elements and human experience as urbanization and population growth advanced. As a result, issues including crowding, residential satisfaction, a lack of sunlight, shared restrooms, and other issues became the subject of scientific study. According to the thesis' architectural focus, residential pleasure is the specific link that needs to be examined. As a result, this chapter reviews the research on residential satisfaction. It organizes the literature topically according to whether a source is focused on high-rise housing, crowding, planning, crime, social features, or physical aspects.

**Keywords:** Apartment, Lahore, Architecture, vertical Growth

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### INTRODUCTION

Apartment buildings are multi-unit buildings that are designed for residential purposes, where each unit or apartment is a self-contained housing unit. These buildings generally have multiple floors and a variety of apartment sizes to accommodate different household sizes and needs. The housing tenure of apartment buildings can vary from large-scale public housing to privately owned and managed buildings that are rented or owned by individuals or corporations. Apartment buildings can have different types of ownership structures, such as condominiums, cooperatives, or rental buildings. In a condominium, individuals own their units and share ownership of common areas, while in a cooperative, residents own shares in the building and have the right to occupy a specific unit. Rental buildings are owned and managed by a landlord who rents out the units to tenants.

Apartment buildings may also offer various amenities, such as gyms, pools, laundry facilities, and parking spaces. They may be located in urban or suburban areas and can be designed to cater to different demographics, such as students, families, or seniors. Overall, apartment buildings offer a flexible and convenient housing option for individuals and families who prefer to rent rather than own a home, or who cannot afford to buy a house (Russell, 2015).

Apartment buildings provide affordable housing options for people who cannot afford to buy their own homes. This is especially important in cities where the cost of living is high and housing is scarce. By building up rather than out, apartment buildings is an efficient use of space, allowing more people to live in a smaller area. Apartment buildings can provide a sense of community and social interaction for residents, who often share common areas such as laundry facilities, fitness centers, and outdoor spaces. Apartment buildings often have security measures such as locked entrances

and intercom systems; it might provide them a feeling of protection and security. Apartment buildings can be a good investment opportunity for developers, investors, and landlords, providing a steady stream of rental income over time. Overall, apartment buildings play an important role in providing affordable housing, efficient use of space, community, safety and security, and investment opportunities (Bluyssen, 2013).

There are many different types of apartments available for rent. One of the types of apartments mentioned in the resource is shotgun apartments, which are sometimes called railroad-style or thorough-through apartments. In this layout, rooms are lined up in a row or in an L-shape. If you rent a shotgun-style apartment, you will likely need to walk from your bedroom through the living room and kitchen to get to a bathroom or front door. Shotgun apartments with two bedrooms usually have bedrooms located at opposite ends of the apartment to provide more privacy.

Other types of apartments mentioned in the resource include studio apartments, which typically feature a single living space that combines the bedroom, living room, and kitchen into one open area, and one-bedroom apartments, which have a separate bedroom and living area. Two-bedroom apartments offer more space and are popular among families, while three-bedroom apartments provide even more space and are often rented by larger families or groups of roommates.

There are also luxury apartments, which offer high-end amenities and services like a fitness center, swimming pool, and concierge services. These apartments tend to be more expensive than other types of apartments. Another option is a loft apartment, which is typically a large, open space that was once used for commercial or industrial purposes and has been converted into a living space.

Finally, there are also serviced apartments, which come fully furnished and often include housekeeping services, utilities, and other amenities. These apartments are typically rented for shorter periods of time than traditional apartments and are popular among business travelers and people relocating to a new city (Sundrani, 2018).

After reviewing the housing literature, key elements that are frequently linked to influencing people's decisions about owning or renting apartments in high-rise complexes were chosen. Additionally, when customers decide to purchase an apartment, they take into account a number of factors, including the reputation of the Real Estate Company, the tailor-made nature of the home, timely handover, interior fittings, a low risk, the standard of convenience living, the accessibility of necessary institutions, etc. The real estate industry will be able to contribute more to the economy if it can address apartment buyers' needs and construct projects for middle-class and lower middle-class individuals. Even though the industry is now having some issues, there is still a lot of room for growth as long as there is continued transparency and, more importantly, as long as individuals in the middle and lower middle classes can access some substantial services. Finally, it is undeniable that the real estate industry has made significant contributions to the development of infrastructure.

The words "resident," "satisfaction," and "behavior" are defined as follows by the Oxford English Dictionary: According to the dictionary, a resident is "A person who lives or has a home in a place, as opposed to a visitor," while fulfillment is defined as "The feeling of contentment felt when one has or achieves." The same definition describes behavior as "the way of acting or functioning." But these are the terms' basic linguistic meanings. The definitions of these phrases naturally call for more clarification within the context of scientific investigation. Residential pleasure was defined by Lu in 1999 as follows: "Satisfaction with one's residential situation indicates the absence of complaints and a high degree of congruence between actual and desired situations" (p. 265).

When it comes to apartment buildings, there are several key terms that are important to understand. Here are some of the primary terms related to apartment buildings, along with brief definitions:

- a. Apartment Building: A building containing separate residential apartments.
- b. Mid-Rise Apartment Building: A building with between five and nine floors that often features at least one elevator.
- c. High-Rise Apartment Building: A building with ten or more floors that often features multiple elevators.
- d. Condo: A type of apartment building where each unit is individually owned and the building is managed by a board or group of owners who make building-related decisions or community rules.
- e. Studio Apartment: A small apartment typically consisting of one room that serves as the living area, bedroom, and kitchen, with a separate bathroom.
- f. Penthouse: A luxury apartment located on the top floor of an apartment building, typically with expansive windows and dazzling views.
- g. Equity: the portion of the apartments worth that belongs to the owner.
- h. Escalation Clause: In a real estate contract or offer, this clause or addendum specifies that if the seller receives a higher competing offer for the property, the buyer is willing to increase their offer price to a predetermined amount. The purchase of apartment buildings may also include this provision.
- i. Amenities: Additional features of an apartment building such as a gym, pool, or communal workspace that are shared by all residents.
- j. Maintenance Fee: A fee paid by the apartment owner to cover the cost of maintenance and repairs to the building and common areas.
- k. Security Deposit: A sum of money paid by the renter at the start of their lease to cover potential damages to the apartment. This deposit is usually returned at the end of the lease if no damages have been incurred.
- l. Rent Control: A government policy that limits the amount of rent that landlords can charge for apartments in certain areas or under certain circumstances.

Overall, these are some of the primary terms related to apartment buildings that are important to understand for anyone interested in buying, renting, or managing an apartment building (Zadkarim, 2016).

## 2. Resident view

Long-standing study interests in sociology, psychology, planning, and geography include residential satisfaction. There are two main causes for the popularity of the subject. First off, home contentment has been acknowledged as a crucial element of people's overall quality of life.

Second, it has been discovered that how people assess their homes and neighborhoods affects how they react to their living spaces (Lu, 1999, p. 264). Two distinct perspectives on home satisfaction have arisen in empirical investigations in response to these research motivations, both of which treat residential satisfaction—or lack thereof—as a result or creation of behavior. On the one hand, there are studies that claim that home quality creates residential contentment. Therefore, the purpose of this research is to identify the variables affecting residents' contentment with their home environment (which may include their neighborhood, kind of dwelling, and social influences).

Other scholars, such as Liu (1999), believe that home happiness is a predictor of behavior rather than a creation. (Maina, 2020).

The design of apartments can vary widely across different countries. Factors such as housing prices, cultural norms, and architectural styles can all influence apartment availability and design. While resources such as home tours and design surveys can provide insights into apartment design in different countries, it's important to do further research to gain a more comprehensive understanding of the housing market in each country.

Apartments can be an important form of housing for many people, particularly those who are looking for affordable and convenient options. According to a resource from the Center for American Progress, the current housing affordability crisis in the United States is due to deliberate policy choices and chronic underfunding that have persisted for decades. This has made it difficult for many people to afford to buy a home, which has led to a growing demand for rental housing, including apartments. Detail of the case studies is described in next chapter (Kumar, 2021).

In residential apartment, a modified version of a scale successfully used to assess social support and neighborhood ties was employed. The two main subscales of the communal life style are relationships in the area and social support obtained from the residential apartment. The residents' relationships with their neighbors who live in the same apartment complex as them were assessed using seven items. Each item received a rating on a five-point scale. Some frequent phrases that signify a good relationship with neighbors range from being highly unsatisfied to being extremely satisfied with the total goods provided. There were 6 items in the social support subscale. The respondents had to give each thing a rating by choosing from one of four possibilities: probable true, definitely true, probable false, and definitely false. The results of this study can be used to develop marketing plans that are considerate of lifestyle concepts as well as to manage and build apartment complexes. The findings from this study cannot be generalized due to the distinctive sampling framework. It is advised that more research studies examine the housing apartments claims with various groups in various marketplaces.

All houses share at least one component (floor, ceiling, wall, etc.) with other houses, including high-rises, low-rises, walk-up flats, terraced housing, but not detached housing. In high-rise buildings, which are the subject of this discussion, apartments are arranged both horizontally and vertically. The ceiling of one unit will be made up of the floor of another, and so forth. The wall of one unit will also be made up of the wall of another. Single-family detached homes share the least amount of wall space with other homes. This home does not share a ceiling or a wall with any other tenants and can have a single story or a maximum of three. Residents of houses that were divided from one another by walls, floors, and ceilings that also made up the walls, floors, and ceilings of another household tended to feel dissatisfied with their homes, according to research done by Gillis in the United Kingdom in 1977.

Sociologists, psychologists, planners, and architects have all done various studies on residential contentment in various parts of the world. These investigations create several residential satisfaction frameworks. The two residential satisfaction frameworks created by Liu in Hong Kong in 1999 and Phillips in 1990 may be especially helpful in this thesis. Liu's 1999 framework study identified four aspects of resident satisfaction.

- Aesthetics of apartment building that include Sociological factors like
- Privacy, Security, Image/status, Economic, Space conservation
- Physiological Physical Comfort of apartments like Health and Safety

- Functional Appropriateness of apartments

Residential pleasure has four dimensions, according to Phillips (1990). These include contentment with the,

- Community; Housing System
- Social Relationships
- Living Environment

The phrase "living environment" refers to the area that includes both the people in the environment and the environment in which the house or apartment is located when discussing research by Perez et al. The terms "community" and "social relationships" refer to the neighborhood, which is one of the fundamental frameworks of satisfaction. The 'housing system', on the other hand, describes the layout, the number of rooms, the sizes of the rooms, the walls, ceilings, and floors of the house, as well as all the other architectural features such as the location of the windows where light can enter the home, the flooring, and the furnishings. In the experiment she conducted in 1990, Phillips (1990) examined the formal dimensions of pleasure by sub classifying the previously listed dimensions according to the type of structure

#### **METHOD**

The Surveys were conducted to gather opinions on the view from different apartment buildings. Participants rated the view based on aesthetics, accessibility, and overall appeal. The data provided insights into trends and patterns in view preferences. By taking into account factors such as location, design, and amenities, a comprehensive review on apartment buildings worldwide was obtained.

#### **RESULTS AND DISCUSSION**

##### **Factors (Physical environment) of apartments affecting residents**

Sunlight, wind, natural light, air, noise, building use, open space, skyline, scenery, traffic, and public conditions are the key components of the physical environment. These factors have an impact on how people behave and are satisfied. It has been discovered that a person's level of contentment affects their behavior. However, as we saw, it has also been discovered that behavior has an impact on satisfaction. Many community activists and planners take these assertions as gospel without demanding more evidence: better design is thought to lead to better behavior.

In addition, it has been amply demonstrated that the metropolitan environment has an impact on human behavior. Studies investigating this phenomenon distinguished between public and private engagement, different sorts of crime, and interactions between adults and children along three axes. Researchers look into distinct demographic sub-groups like the elderly, women, and children in order to pinpoint the precise cause of residential contentment. These are created as sub-groups that demand unique study and special care.

The level of the floor of residence has been found to have an impact on residents in apartments. Living on upper floors leads to isolation and loneliness, claims Gillis (1977). According to Gillis' findings, people who live on higher floors are more dependent on their homes than people who reside on lower floors, who have easier access to the outside world. In this aspect, levels of satisfaction vary from person to person and between the sexes. Women are known to be more confined to their homes than males due to their nature, thus picking the right floor level to live on can boost their pleasure with the latter type of variance. In light of this, it can be said that women are more sensitive to building height and density than males are.

In addition to gender, the word "high density" has been discovered to be another factor influencing residential satisfaction, with differing outcomes for men and women. In opposition to Gillis, Gifford (1997) argues that men were more affected by density, which led to antagonistic moods and social behavior. Women were less impacted than men because they were better able to cope with stress. In their analysis in Malaga, Spain, Jacinto and Mendieta (1999) found that there may be a connection between crowding and psychological distress. Gifford (1997) added to Jacinto and Mendieta's results by stating that residents of high-rise buildings felt crowded, lacked privacy, safety, building satisfaction, control, and had fewer relationships with neighbor's. In a similar vein, Eyüce (1991) discovered that the density of apartment complexes was their primary flaw. Gifford, on the other hand, acknowledged in his book from 1997 that there were various findings about residents of upper floors. The following are the reasons for this: first, higher floors have a wider view field and more visual escape than lower ones. Second, because fewer outsiders were anticipated to travel through upper levels than lower ones, inhabitants on higher floors reported feeling less crowded than those on lower floors.

The locations that the word "crowding" alludes to could be a city or town, neighborhood, flat, or even just a single room in a house. The "crowding area" in this thesis is specifically defined as one's residence and doesn't actually refer to a city but rather to a flat and the surrounding area. In this setting, changes in architectural plans become crucial in the buildings that serve as peoples' "residence." Planning and design that is intentional reduces crowding and boosts happiness. Residential congestion is significantly influenced by the number of occupants, the number of rooms (whether shared or separate), the number of toilets, and, in general, the kind of dwelling and residents. Hallways are another aspect of architecture that Gifford (1997) mentioned as having an impact on congestion.

Long corridors can exacerbate the feeling of crowding and heighten tension, he added. He discovered additional elements that affected residential satisfaction, including sunlight (brightening a room with light colors decreases the sense of crowding), ceiling height (as the height of the ceiling increases the sense of crowding decreases), walls (straight walls decrease and curved walls increase the sense of crowding), floor covering, furniture arrangement (lots of furniture increases the sense of crowding), and temperature (high temperature increases the sense of crowding).

Children emerged as a different group to be influenced by crowding after examining the impacts of the perception of crowding on men and women. According to research on youngsters, issues including manifestations of unhappiness, restlessness, and an inability to concentrate appeared if the family density was high (Gifford, 1997).

Elderly persons are yet another population whose contentment necessitates particular consideration and focused research. As a result, elderly individuals are more likely to experience loneliness and realize that they require communication and conversation partners. It is realistic to suppose that senior people find it difficult to move because they have lived there for a long time, have cherished memories there, and have friends there. Situations like the threat of collapsing or earthquake damage provide exceptions. They value their neighbors and friends in the buildings just as much as they do their house (Perez et al., 2001). The question that needs to be asked at this point is: "Do elderly people who live in high-rises have enough neighbors to be friends with?" Ballesteros et al. (1998) discovered that both individual and environmental factors affect senior citizen happiness and quality of life (Sardar, 2021).

Lahore, despite the high cost of housing and living. Housing societies and areas in Lahore charge heavy rent ranging from 10k-30k for a 2-bedroom apartment. However, these areas are also equipped with all the luxuries such as mega malls, hospitals, and restaurants, making them attractive living options for many people. People in Lahore prefer to live in the best available options, which could explain why apartment living is popular. Additionally, living in an apartment can offer several benefits, such as easy access to amenities and a more communal living experience. Overall, while the cost of housing in Lahore may be high, it appears that many people still choose to live in apartments due to the advantages they offer (Ahmad, 2020).

The Lahore Development Authority (LDA) has set certain laws for building designs. As per these laws, the minimum height of any building from the bottom to the ceiling should not be less than 38 feet. Moreover, the minimum height between each storey should be 9 feet and 6 inches. Additionally, the apartment building on a residential plot can cover about 55% of the area.

- LDA increases height by two times.
- The Lahore Development Authority (LDA) recently nearly doubled the permissible height limits for residential apartment buildings, from 45 ft. (ground plus three floors) to 80 ft. (ground plus six floors), due to the scarcity and high cost of land for housing close to the city centre (Javed, 2021).

### **In the context of developing countries**

#### **1. Jakarta, Indonesia**

Large cities like DKI (Special Capital Region) Jakarta have built apartments (rasunawa), one of which is to address the issue of a lack of residential land. The province administration has made a number of attempts to address its residents' housing issues, particularly those who have low income levels. In order to address the issue of homelessness for some low-income people who work in both the formal and informal sectors, including low-level civil servants, hawkers, motorcycle taxi or bus drivers, sales assistants, factory workers and so on, the provincial government founded the rusunawa. When building flat housing complexes, it is essential to have a long-term spatial planning strategy in place to prevent creating societal issues in the future. In order to ensure that the circumstances, desires, and needs of a flat are met, it is also important to learn about the perspectives of the apartment's tenants. These impressions or thoughts will then serve as the foundation for how certain apartment dwellers react to their surroundings or how individuals behave while in an apartment environment (Tjiptorini, 2016).



Figure 1: Rusunawa Residential Units

A well-run apartment block will benefit its occupants. Similarly, parents who raise their children in a secure, cozy, and peaceful atmosphere will enable the offspring to develop the strength of their respective characteristics to interact with their surroundings and develop into hardy, adaptable, and amiable people. A qualitative research design approach was used to conduct a study on residents' impressions of the flat in order to ascertain the opinions of those who had lived there longer than a year. Given that this approach is based on an interpretive paradigm, where social and personal events are explained using a common sense framework that gives meaning to ordinary occurrences, qualitative research methodologies are thought to be acceptable. Despite the fact that the responses shared by the citizens of Rusunawa are very similar, each resident has a unique perspective on the city. However, they continue to place a lot of weight on the physiological demands, safety, social connection or affection, self-confidence, and self-actualization that are inherent to human beings (Chaplin, 2015).



Figure 2: Apartment building sectional elevation plan



## **2. Kathmandu Valley, Nepal**

The current state of affairs in the Kathmandu Valley demonstrates that developers build apartments more for financial gain than to address the housing problem. Due to the high interest rate, formal collateral in the form of land and houses, and high income of people to repay loans preferred by commercial banks, the economically weaker segment and lower income group of people are not qualified to proceed for the loan. The price of flat flats is too expensive for EWS and LIG to purchase. Rapid population growth in primate towns like Kathmandu has made it difficult to find land to house the growing number of migrants, in addition to contributing to the unsanitary living conditions and the degrading urban environment. The result is that the wealthy are moving. The impoverished are always stuck in Kathmandu's fragile core cities on the periphery of the city. Rich people's relocation to the edge has resulted in an ad hoc development of social inequality and discrepancy among those residing in the same locations (Shrestha, 2012).

Housing expenditures should account for 25% to 30% of gross income in affluent countries, but they are greater in the Kathmandu Valley. Because income is the primary factor impacting affordability, government policy on housing must concentrate on the cost, unitization, and availability of such housing stock. Several factors, such as household income, expenses, and policy tools, have an impact on affordability. Government policy must priorities providing decent, affordable housing that is linked to the users' sources of income. Providing housing doesn't just imply giving people ownership of a home; such policies also need to make inexpensive rental housing more widely available so that low-income families can have access to it. To alleviate the urban housing issues, institutional support is essential, as shown in India, Malaysia and Sri-Lanka. Institutional organizations that support the underprivileged and give them access to loans and funds to meet their housing needs should exist. There are many other funding strategies that could be implemented, such as cooperative housing, social housing, corporate social responsibility of commercial banks, etc (Conroy, 2013).

## **3. UAE**

The home market is naturally complex. Although research suggests that the UAE is one of the nations that take sustainability seriously, little is known about how residents in the UAE's residential sector see sustainability. Residential Apartment structures are one of the fundamental communal elements that characterize the good quality of life and general wellbeing of the populace. Additionally, residential construction accounts for up to one-third of global greenhouse gas emissions in both developed and emerging nations, using around 40% of the world's power. In the UAE, the residential sector has had a notable rise in electricity usage, going from 6580 GWh to 12,795 GWh between 2006 and 2017 (Bande, 2019).



Figure 3 Luxury 3 storey building elevation plan

This study sought to ascertain how residents of Apartment residential buildings in the United Arab Emirates perceived their surroundings using the three-pillar paradigm. (Environmental–economic–social). Extrapolating indicators from important research carried out in various countries and having SMEs certify them are used to evaluate each of these pillars. All things considered, it was found that the three pillars of sustainability are interconnected; in the residential market of the United Arab Emirates, economic and environmental considerations have a greater influence on views of sustainability than social ones. Additionally, the comparison analysis showed that there is a statistical difference between the different demographic traits, including gender, educational attainment, employment status, and monthly income. Last but not least, a predictive categorization model was created to forecast if the intended audience will understand the sustainability concept (Roberts, A.,2019).

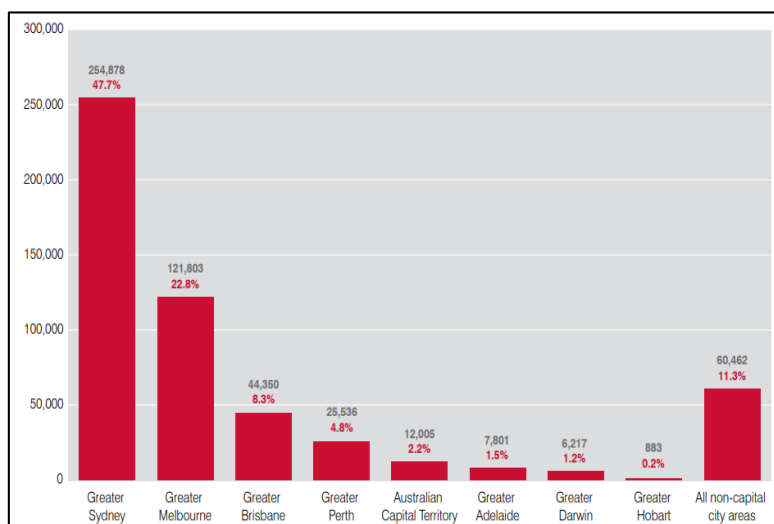


Figure 4: Initial Structural Equation Model

This framework of sustainability perceptions can be used by planners and policymakers to help them decide how to design and build residential building projects that will improve the tenants' perception and awareness of sustainability. This strategy would also benefit policy/decision-makers, developers, contractors, designers, and facility management organizations in order to enhance overall sustainability in the residential sector.

It is advised that more data be gathered for the predictive model in subsequent research to improve its utility and accuracy. Additionally, the study can be carried out in other nations with comparable demographic characteristics, like the GCC, as well as in nations with different demographics, in order to either confirm the results or derive fresh insights. Additionally, this study is based on information from a specific industrial context, namely the Apartment residential sector in the United Arab Emirates. This means that integrating other industries would lead to different conclusions and insights regarding how sustainability is perceived (Rauf, 2016).

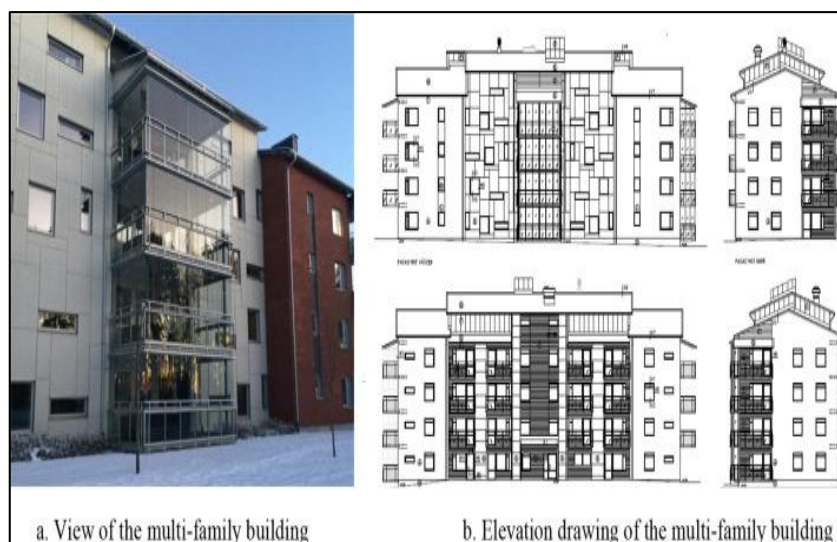
#### **In the context of developed countries**

##### **1. Lithuania**

Modernization of apartment buildings is an important topic in many nations, including Lithuania. In order to make it more effective, a full block or residential area must be restored, the renovation of flat dwellings must be integrated, and sustainable development principles must be followed. This article examines the challenges of retrofit planning in residential neighborhoods and blocks as well as the state of apartment buildings and their surroundings (Nagar, D. ; Nelson, G., & Prilleltensky, I. 2005). The strategies aim to improve living conditions and environmental quality, lower energy consumption and CO2 emissions, maintain a mixed social structure, sustainably integrate new construction into the existing environment, develop an urban core of a residential area that serves as a part of the city, encourage democratic planning, and work closely with modernization partners. It is necessary to develop scenarios based on relevant strategies in order to identify the retrofit actions, their priority, and potential impact (Steg, L., & Vlek, C., 2009).



Figure 5 Apartment building front elevation plan on Main Street



a. View of the multi-family building

b. Elevation drawing of the multi-family building

Figure 6: Apartments in Lithuania

One type of urban development is the retrofit of buildings and the surroundings. It should aid in resolving energy and environmental problems and enhancing quality of life in Lithuania and other nations. As a result, retrofit should adhere to the standards for sustainable development (Marans, R. W., 2015). The goal of retrofitting older apartment buildings and their surroundings is becoming more and more important

The following must be the main objectives of modernization plans for areas with apartment buildings:

- To maintain a mixed social structure;
- To sustainably integrate new construction into the existing environment;
- To develop the urban core of a residential area as a useful part of the city;
- Democratic planning; close cooperation among partners; modernization.
- To improve living standards and the quality of the environment.
- Long-term retrofitting and facility management (Chandrasekaran, 2019).

## 2. Australia

New knowledge regarding the traits of tenants of lower-income apartments is provided by this study. It examines how effectively apartment constructions fulfill this group's needs and speculates on how upcoming developments can most effectively meet the demands of lower-income people in terms

of wellbeing, community, and affordability, both at the building and neighborhood scales. In order to give a descriptive analysis of lower income apartment households, this study examined Census data and strata title registration data, concentrating on Sydney and Melbourne. Four case studies comprising interviews, focus groups, and site visits are also included. The distribution of flat stock in Sydney and Melbourne is interestingly compared in two case studies, with Sydney's apartments dispersed throughout the metropolitan region and Melbourne's apartments concentrated more in the inner city and central districts (Beltrame, 2020).

The results of coordinated urban redevelopment versus ad hoc urban redevelopment differed noticeably in the four case studies. The demand that planning authorities ensure developments was both publicly beneficial and commercially profitable is challenging to meet. While evidence of successful development was present, there was also evidence of speculative activity, inflated property values and the ensuing evictions, and developers who overpaid for land before lowering the bar to cut costs. Flexible planning controls have unquestionable benefits, but frequent changes to policy settings have often been negative. Planning that allows for flexibility to accommodate future changes in flat inhabitant profiles, such as those of families with children, must also be a policy priority. In order to assure the shared use of the private and public spheres, new design and management approaches are required. The spaces in high-density areas work well together (Alawode, 2021).



Figure 7: New development apartment floor plans

### 3. Finland

The predicted shift to a forest-based bio economy depends significantly on how locals feel about new bio-based items like wood. A contemporary bio-based economic possibility for supporting low-carbon urban housing is represented by timber apartment complexes (more than two stories). This study examined Finnish timber apartment block inhabitants' experiences.

- The majority of respondents thought that ecological considerations would affect their own decision to live in a certain location
- Respondents generally had positive opinions of the overall design and architecture of their buildings.
- Residents were generally satisfied with their current residence, living environment, and apartment's functionality
- Participants generally emphasized the benefits of timber apartment buildings for sound insulation and a comfortable indoor climate; poll respondents said they would prefer to live in two-story homes and apartment buildings;
- The presence of automatic sprinkler systems and fire alarms was considered to be the factors that improve life safety (Savolainen, 2019).

The purpose of this was to provide a comprehensive picture of Finnish residents' experiences with wooden apartment buildings, as well as significant factors that residents should take into account when choosing a residence, how they currently feel about their home, and the differences between living in a wooden apartment and one made of another material. The apartment's suitability for the resident's living situation, location, affordability, and practicality of the floor plan were the most crucial factors influencing residence preference. People who participated in the poll expressed satisfaction with several aspects of their current dwelling, including the building's general design and look, the apartment's functionality, its location within the building, and its surroundings. The most popular wood construction components were doors, windows, façades, balconies, floors, and structural systems (Heller, K.,1984).

This study can shed light on how tenants feel about living in wooden apartments and serve as a preliminary design manual for those who are interested, including architects, builders, and developers in the residential building sector. In this way, it is possible to have a better grasp of the housing options and expectations of future generations in Finland (Ukoha, O.M,1997; Wandersman,1985)

#### **Residential Satisfaction on Apartment Buildings in Pakistan**

Cities in Pakistan are unable to meet the needs of the population with an adequate quantity of housing due to the country's growing urbanization. Building apartment complexes is becoming a more popular option for meeting housing needs. However, the needs of the residents are not taken into account when designing apartments. When designing an apartment complex, more consideration should be given to elements like open space, basic amenities, and privacy.

A range of replies were recorded in response to the question of what may motivate tenants to move to an apartment. The majority of locals believed that flats offered greater security. Many of them believed that because their homes were so small, they needed little maintenance. Apartment complex members said that living there helped foster a feeling of community and brought people together. The apartments' location may persuade people to move into one. They would switch to a more affordable choice because apartments were more affordable; however other opponents claimed that the appeal of luxury would tempt them to stay in apartment buildings (Rasheed, 2017).

Overall, there was just a marginal difference in how satisfied people were with the buildings' noise levels, parking lot upkeep, and cleanliness for both housing types. Following data analysis, it was determined that there are a variety of aspects to be taken into account while planning and carrying out a residential project in an urban environment. The most significant aspects that influence a resident's opinion of the apartment buildings are those that deal with privacy, open

space, ventilation, noise, and garbage disposal. An inclusive stakeholder analysis should be carried out, and the welfare of all people should be taken into consideration, to prevent suggesting ideas that are not long-term fixes for Pakistan's housing scarcity issue (Azimi, 2022).

### **Residential Satisfaction on Apartment Buildings in Lahore**

The issue of urban housing is seen to be solved via vertical growth. The current study seeks to examine the topic of flat living in Lahore, Pakistan, from a variety of angles. However, the study was expanded to include the in-depth privacy experiences of adolescents because it was noticed that this age group was being severely underrepresented in both research and the distribution of privacy in apartments. Assessing inhabitants' contentment with and favorability of vertical living was the study's main objective. Although they are happy with the building's infrastructure, the residents do not favor vertical over horizontal housing. Because of the close quarters and shared space that come with vertical growth, adolescents in apartments also prefer horizontal dwelling to vertical living. The use of spaces within dwellings is related to specific aspects of personality development at this age. The research can be used to develop and execute policies for sustainable vertical housing (Fatima, 2019).



Figure 8: Apartment buildings in Lahore

Future research should highlight how various population segments, such as the elderly or the disabled, view these vertical buildings because it was noted that none of the three sites had a lift or a ramp to support the elderly or the disabled, making it important to thoroughly examine the factors influencing the cultural image of flat living in Lahore. Similar to how apartment colonies chosen for this study featured open areas for recreation, most places where vertical growth is uncontrolled lack this feature.

Therefore, it is advised that the demands of various demographic segments be taken into careful consideration throughout the planning stage. Additionally, given the low response rate, a larger-scale study of a similar nature is advised, which the current study was unable to conduct due to time and resource limitations. The sustainability of vertical growth in Lahore can be improved by doing a thorough analysis of flat satisfaction and favorability among various resident categories (Hassan, 2020).

## CONCLUSION

Residential satisfaction is challenging to measure and has several factors that need to be looked into. The determinants and effects of the extensive research on home satisfaction are presented in this chapter. The factors that affect residents' design initiatives and the steps that must be taken to address discontent have been covered in this chapter. It has been established that these are composed of interpersonal relationships, the physical environment, the structure, and ultimately the housing system, which includes aspects like color, wall shape, space size, floor covering, and interior furnishings. Finally, both space and space users must be considered in residential satisfaction research. Planning needs to be creative, and design elements raise the fun factor. Making a physical product should not be the only goal; rather, the goal should be to make the product acceptable for human life.

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