

ASSESSMENT OF RESIDENTIAL SATISFACTION IN APARTMENT BUILDINGS: A LAHORE PERSPECTIVE

Saddam Nazeer^{*1}, Tabinda Faisal², Iqra Ismail³, Maddia Yaseen⁴, Mawa Mahmood⁵,
Taha Mahmood⁶

^{*1}University of the Punjab, Lahore

^{2,3}Lahore College for Women University

⁴Forman Christian College, a Chartered University, Lahore

^{5,6} University of Engineering and Technology, Lahore

arch.saddamnazeer@gmail.com, tabindafaisal68@gmail.com, iqra.ismail94@yahoo.com,
madiayasin1@gmail.com, plannermawamahmood@gmail.com, mayotaha2@gmail.com

Corresponding Author: *

Saddam Nazeer

DOI: <https://doi.org/10.5281/zenodo.21872338>

Received 01 January 2026	Accepted 17 March 2026	Published 31 March 2026
-----------------------------	---------------------------	----------------------------

ABSTRACT

Investigating residential satisfaction in apartment buildings was the goal of this project. It includes research of the variables affecting a sample of individuals' residential satisfaction in a selected case study area that is Labor colony, Dhall flats and Askari 11 apartments in Lahore. By concentrating on factors like the housing system, safety and security, privacy, social contact and relationships and the physical characteristics of construction materials, the context is supplied. Contrary to popular belief, the methodological rationale of the thesis is that it is necessary to take into account both the apartment building and environment to accurately estimate resident satisfaction. The main component of the research technique is the distribution of a survey questionnaire to 250 participants who were randomly chosen from three selected areas (apartments). There were inquiries about the apartment, the structure, and the surroundings. The results showed widespread satisfaction. Reliability analysis was performed to find out the factors responsible for resident satisfaction. Whereas, chi-square test was used to compare the opinion of residents in different areas of apartments buildings in Lahore. However, the scientific study should not stop at this level of conclusion and should instead focus more on the negative facts that point out the design issues that planners and architects should concentrate on to create places and the built environment that will satisfy people.

Keywords: Apartments, Lahore, Design, Resident Satisfaction

INTRODUCTION

For a sizable portion of individuals living in large cities, housing is a highly essential matter. Planners and architects have created Apartments to accommodate many people in a limited space. Apartments are prevalent in metropolitan areas due to migration. As a result of migration and a rise in population density, cities get congested.

The increased business demand and employment prospects in the sector are to blame for this population boom.

Many of the world's top universities and colleges are located in Lahore. Hence education also plays a significant role. Students briefly relocate here to pursue their education but remain to support themselves permanently. Residential land is also

being turned into commercial due to the high business demand. What factors contribute to the unacceptability of Apartments living, and what views do people have toward Apartments housing? To do this, it is necessary to examine how society views and is familiar with Apartments residential facilities and the institutional ability to manage and provide for them.

Investigating residential satisfaction in Apartments apartment complexes was the goal of this project. It includes a study of the variables affecting resident happiness in a sample of apartment complexes in a selected Lahore neighborhood. By focusing on elements such as the housing system, safety and security, privacy, social interaction and connections (neighborhood), and the physical properties of construction materials, the context is provided. Contrary to widely held beliefs, the methodological justification of the thesis is that resident satisfaction cannot be assessed using subjects. While responding to their apartment, one must also consider the environment and apartment building. There were inquiries about the apartment, the structure, and the surroundings. The results showed overall satisfaction. However, scientific study should not stop at this level of conclusion and should instead focus more on the negative facts that point out the design issues that planners and architects should concentrate on in order to create places and the built environment that will satisfy people. The study tends to explore the degree to which its features are satisfied at various levels: explanation of how material demands are met; providing shelter has always been one of a person's basic needs in order to survive.

Apartments can also be a good option for people who are looking for flexibility in their living situation. Renting an apartment allows people to move more easily and quickly than buying a home, which can be important for people who need to relocate frequently for work or other reasons. In addition, many apartment complexes offer amenities like pools, fitness centers, and laundry facilities, which can make apartment living more convenient and enjoyable for renters.

Overall, apartments can provide an important form of housing for many people, particularly those who are looking for affordable and convenient options. While there are certainly challenges and issues associated with apartment living, such as limited space and potential noise from neighbors, apartments can be a great option for people who value flexibility, convenience, and affordability in their housing choices.

As in Lahore there are many upcoming Apartments apartment buildings are proposed and also government authorities want high rise or vertical buildings in Lahore.

Cost efficient in the long run

Good business

Builders enumerate slew of benefits

Viable investment for the apartment owner

Research Design

A systematic questionnaire survey of the residents was used in the research, along with a brief review of the literature. Important determinants of residential satisfaction in apartment buildings were found. It suggests that stakeholders take these recommendations into account when designing residential apartment buildings in the future. It is a crucial stage in the research study because it will outline the process for gathering data and how to get better results. Dual working, which includes both office and field work, is the foundation of the architecture sector. The pandemic scenario makes it difficult to collect data, therefore this step will concentrate on using online tools and visiting apartment buildings to gather feedback.

For studying the resident's perception and satisfaction level 1 old/traditional and 2 new areas from Lahore city were selected that area, Dhalla Flats, Labor Colony and Askari 11 apartments.

Findings

The crucial elements influencing residents' contentment are thoroughly covered in the study. These elements are divided into three categories for this purpose. First, factors affecting respondents' socioeconomic level, such as age, education, gender, marital status, race, and income, have an impact on residents' contentment. Housing qualities including size,

pricing, building design, and physical conditions make up a second set of residential satisfaction criteria. Third, the qualities of the apartment have an impact on occupant contentment. The impact of these factors on resident satisfaction in Lahore is also examined in this study. SPSS software was used to run the chi-square test and reliability analysis. The chapter consists of two parts, the first part indicates the statistical results of satisfaction of respondents in case study area and second part explains the results of perception of architects, builders, students and potential stakeholders.

3.1. Demographic and Socioeconomic Features of Respondents

56.6% of the 250 responders were men, and 44.4% were women. Young adults and seniors made up a modest portion of them. The main findings of this study show that the majority of the inhabitants only recently moved into the freshly built apartments. The average occupancy period for residents is no longer than two years. The type of Apartment in Askari 11. Study conducts 60% are of 2 bed apartment type and 15% are of the 3 bed apartment type.

As a result, the author discovered that people who lived in apartment complexes were substantially happier with their neighbors and their social life. Every flat the author has lived in has space shortages that don't meet our wants. The number and size of rooms as well as the number of bathrooms are the most obvious examples of this. In order to create larger spaces, inhabitants were observed assimilating balconies into rooms or converting balconies into rooms, as well as removing dividing walls.

Satisfaction about the residence (Apartment)

Residential contentment is significantly influenced by housing characteristics. Positive housing qualities, such as larger size and better housing facilities, have been proven to be major variables for residential happiness in studies in the

literature. Although the floor space, housing cost, and home ownership are positively correlated with residential happiness in this study, they are not significant determinants in Lahore. It's interesting to see how important building design and a new degree of construction are followed in building design, particularly, with a Cronbach's Alpha value around 1%, is the most significant factor influencing residential satisfaction. It appears that Lahore residents place a higher value on housing quality than on cost or location.

Reliability analysis

Variables were chosen based on the viewpoint of the resident, and an analysis was done among the variables to verify their reliability. The table presents the results. The results for walls and windows were found to be very intriguing. Both things received high marks from all of the residents. No unsatisfactory outcomes (i.e., terrible results) have been chosen for these items. 'Neither' was the only option available for these two. Unfortunately, from the standpoint of the resident, the door, plumbing, and lift are three important yet extremely important components. The door was at the top of the list in terms of rank, followed by plumbing, and then the lift.

The quality of both types of housing in Lahore was, however, moving in the wrong direction, as indicated by the previous table. However, the overall quality results from the viewpoint of tenants show that, while all 156 occupants of private housing are happy with the quality of their building, more than 55% of those living in public housing are not. As a result, 248 out of 250 randomly selected Lahore residents reported being at least 49.60% satisfied with the quality of their building, while just 1.24% reported being indifferent. In this survey, 38% of participants said that they were dissatisfied with the quality of their homes.

Reliability Statistics		
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.961	.963	12

Table no.1: Item-Total Statistics

Item-Total Statistics					
Variables	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
External appearance/ building height	31.11	24.579	.427	.669	.752
Security	30.99	25.845	.337	.266	.762
Design of the entrance/lobby	30.72	24.964	.344	.505	.763
Exterior color of the building	31.13	25.238	.626	.753	.740
Vertical circulation within building (lifts and stairways)	30.97	25.520	.492	.600	.748
Are you satisfied with stair-step height in your building?	31.10	24.962	.373	.767	.758
Stairway material/ lift speed	31.07	20.347	.753	.800	.701
Postal service	30.99	25.845	.337	.266	.762
Horizontal distance/material (hallway distance)	40.21	75.717	.635	.718	.860
Lighting level inside the apartment building	29.31	25.370	.318	.503	.765
Door keeping service	30.38	26.181	.310	.755	.764
maintenance and repair service	29.51	24.310	.307	.383	.773
Disposal service/ cleanliness	30.67	24.254	.500	.772	.743
Adequate number and quality of fire extinguishers/ escape routes	41.03	77.182	.609	.836	.861
Building is safe against an earthquake	41.06	73.715	.741	.748	.853
Construction stability of the apartment building	40.65	74.765	.706	.751	.856
Requests met by the Administration and Maintenance Office	39.57	85.037	.213	.570	.880

The outcomes are consistent with those of Gifford's (2018) talks of privacy inside the house.

Firstly emphasizes the fact that a home is a private space and those walls and doors are the elements

that guarantee privacy from various outside forces, such as neighbors and environment, and much more from other people sharing one's home. The size of the house is essential for preventing a person from feeling or being alone. The privacy in lobbies, lifts and other public spaces demonstrated that semi-public spaces in low-rise buildings were thought to be more private than those in high-rise buildings, and it demonstrated that privacy did not require isolation or having a lot of strangers in one's home. Researchers have also discovered that the existence of semi-public spaces in residences reduces the feeling of environment loss and increases contentment.

Accessibility and planning Satisfaction

Based on survey data, the reliability study of relevant elements of residential satisfaction was carried out by SPSS program. The outcomes point to three conclusions. First, factors such as demographic and socioeconomic characteristics that are personal in nature have an impact on

residential satisfaction. Positive influences on home satisfaction come from household income, occupation, and educational background. Residential satisfaction suffers as a result of family size. The two characteristics that have the most effects on home satisfaction are gender and household income. Second, it was discovered that house characteristics had an impact on residential satisfaction. In Lahore, new levels of the building and the structure's architecture are the most important determinants of residential pleasure, even though the cost of living, home ownership, and floor area all have an impact.

Finally, it's critical to take into account neighborhood characteristics. The most important variables determining residential happiness were determined to be community type, population density, and distance to the district commercial core. However, it appears that the distance to the port working areas has less of an impact on household contentment.

Reliability Statistics		
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.873	.876	14

Table no.2: Item-Total Statistics

Item-Total Statistics					
Variables	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
Location	41.24	77.704	.635	.673	.860
Public transport access	40.65	75.526	.682	.720	.857
Leisure facilities? (If yes, are you satisfied with them?)	41.03	77.182	.609	.836	.861
Distance of convenience stores/markets?	41.06	73.715	.741	.748	.853
automobile parking space	40.65	74.765	.706	.751	.856
Cleanliness of public areas	39.57	85.037	.213	.570	.880
Illumination in public areas	40.21	75.717	.635	.718	.860

Security in public areas	40.32	76.671	.694	.777	.857
Shopping and social places	40.76	75.451	.706	.859	.856
Culture and arts facilities (cinema, theatre, etc.)	41.26	74.169	.811	.866	.851
Children's playgrounds	41.00	79.606	.546	.701	.865
Nurseries, primary and high schools	40.74	80.535	.464	.767	.868
Religious facilities	40.67	97.380	-.360	.558	.909
sufficiency of public spaces	40.50	77.437	.613	.787	.861

4.1. Explanation

According to the statistical analysis, respondents are generally very pleased with the level of care they receive from flat owners as well as the competence and friendliness of the management and maintenance staff. Additionally, respondents expressed a high level of satisfaction with their home's condition and quality, as well as with the safety they perceive in their neighborhoods. The satisfaction levels shown in the table reflect value more than 0.5 of the variables including Location, Public transport access, Leisure facilities, Distance of convenience stores/markets, automobile parking space, Cleanliness of public areas, Illumination in public areas, Security in public areas, Shopping and social places, Culture and arts facilities (cinema, theatre, etc.), Children's playgrounds, Nurseries, primary and high schools, Religious facilities, sufficiency of public spaces and others.

Respondents expressed a very high level of satisfaction with both the general repairs that were made and the maintenance employees that helped them. A "1" or "strongly agree" rating, which

indicates very high satisfaction, was given to nearly all maintenance and repair-related criteria on average. Another area where respondents expressed great satisfaction was safety. This satisfaction covered a wide range of topics, including how safe they felt both inside and outside of their houses. With average ratings of 0.8 and 0.65, men were more likely than women to feel comfortable when school-aged children walked by themselves throughout the day in the neighborhood.

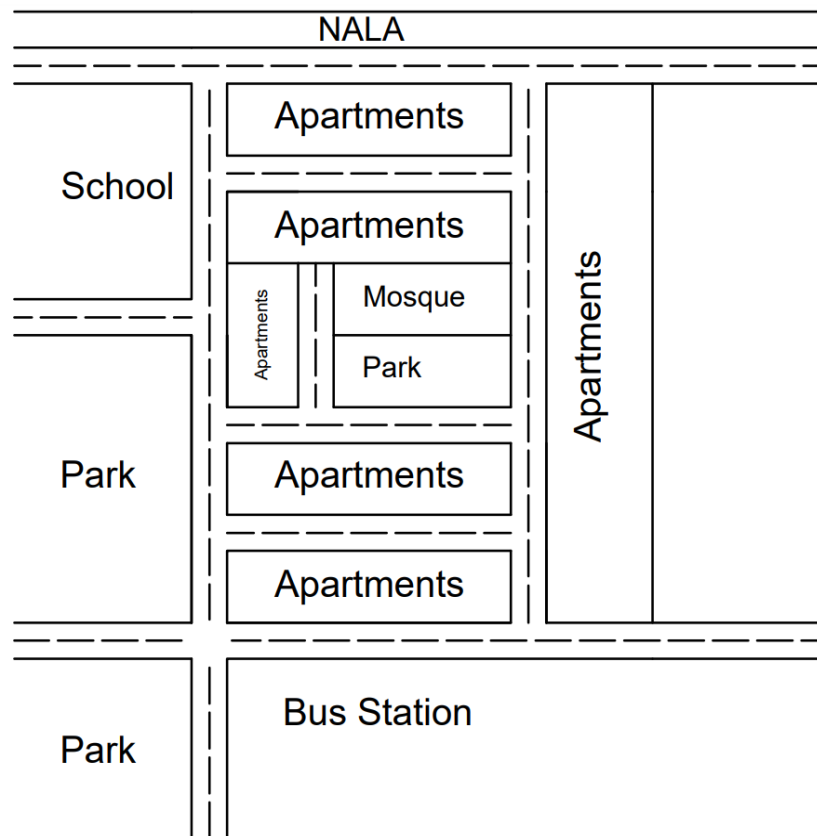
5. Comparison of the Apartment Buildings

5.1. ASKARI 11 APARTMENTS

Apartments are generally cheaper to buy
Apartments are easier to maintain by strata
Use of communal areas like barbecue pits lawns, and gardens, as well as shared amenities like a pool, gym, or tennis court.

They're generally more secure.

Security doors, cameras, keypad-secured entrances, and secure garages are features of many buildings.



Master plan of Dhalla flats By researcher 2023

5.2. Assessment of residential satisfaction in apartment buildings

The purpose of this study was to ascertain the impacts of occupancy status and gender on apartment amenities, deciding factors when selecting a high-rise apartment, community lifestyle, social support, health and wellness, and residential satisfaction of residents living in apartment buildings in Lahore. The results can be interpreted against this background, therefore they can best be viewed as suggestive rather than conclusive. According to the study's findings, the majority of tenants generally expressed a moderate level of satisfaction with the amenities included in labor colony apartments. However, a larger percentage of inhabitants expressed a respectable level of happiness with life in the neighborhood at Dhalla Flats. In addition, more people reported being in good health, expressing a high level of happiness with their homes, and more residents reported good health, reported high levels of

residential satisfaction and high levels of happiness in Askari 11.

The results are in line with expectations in large part because Askari is a brand-new apartment complex, so all the amenities are in excellent condition and there is little chance of wear and tear during the brief construction period. Apart from that, both of the apartments—Dhalla and Labor—are adjacent to a public transportation hub and offer access to all main facilities in the area. Cement, sand, brick, steel, glass-paned steel windows, and steel doors are some of the materials utilized in Dhalla apartments. There was a parking problem in the Dhalla apartments.

A significant portion of respondents want to choose locations where there are many amenities either within the complex itself or nearby. People in every case study area lament the lack of contemporary amenities in apartments. Developers now provide a whole living environment to their residents rather than just building residential apartments. Facilities such as

a clubhouse, tennis courts, jogging trails, swimming pools, and gymnasiums are frequently offered by the builders in high rise buildings. Higher levels of resident satisfaction were shown to be associated with the availability of modern amenities.

The overall floor area in Askari apartments is often smaller, with rooms being more cramped than in houses. Being surrounded by so many people in a complex can make it noisier and less private than a home. Unless in a facility with designated parking slots, parking is not assured.

Table no.3: Chi-Square Tests

Chi-Square Tests			
	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	23.212 ^a	18	.183
Likelihood Ratio	27.989	18	.062
Linear-by-Linear Association	.536	1	.464
N of Valid Cases	40		
a. 30 cells (100.0%) have expected count less than 5. The minimum expected count is .23.			

The findings showed that high-rise inhabitants gave close proximity to facilities including stores, cafes, and restaurants, schools, workplaces, public transportation, and open spaces a high happiness rating. These studies have consistently shown that residents' decisions to live where they did were

significantly influenced by the accessibility and location of these urban amenities. If the facilities are close to the residence or easily accessible, residents are content. To use these facilities, people wish to cut down on commute time.

Crosstab					
Count					
		Organization name			Total
		Labor colony	Askari 11	Dhalla Flats	
About satisfaction of apartment	Size of your residence/ location of flat	1	0	1	2
	Residence functional/ view from flat	2	1	3	6
	Water quality	0	2	0	2
	insulation/ electrical fixtures	1	5	3	9
	Window materials and water tightness at the windows	1	0	1	2
	Sanitary fixtures (wash basins, water closet etc	1	0	0	1
	Quality of television transmission	0	2	3	5
	Uninterrupted hot water service/ Central heating system	1	0	4	5
	Degree of privacy	2	1	0	3
	Acoustic quality of your residential space	0	2	3	5
Total			13	18	40

Institute for Excellence in Education & Research

The table above show the results of chi-square test which depicts the comparison between the three case study areas. Property management typically performs better assessments than the residents that live there. There is no doubt that this situation is critical and that it is happening. An in-depth analysis reveals that the reason for this discrepancy is that property managers simply visit the region during their assigned shifts rather than residing there. Additionally, unlike inhabitants who purchase and own their houses, property

managers do not own the dwelling. These are the apparent and glaring contrasts. There is a critical need to develop and generate a set of usable rules for the administration of apartment complexes in this nation. It is crucial to remember that in order for comprehensive rules, regulations, and guidelines to be helpful in resolving issues with apartment complexes, they must always be accompanied by tight enforcement and monitoring.

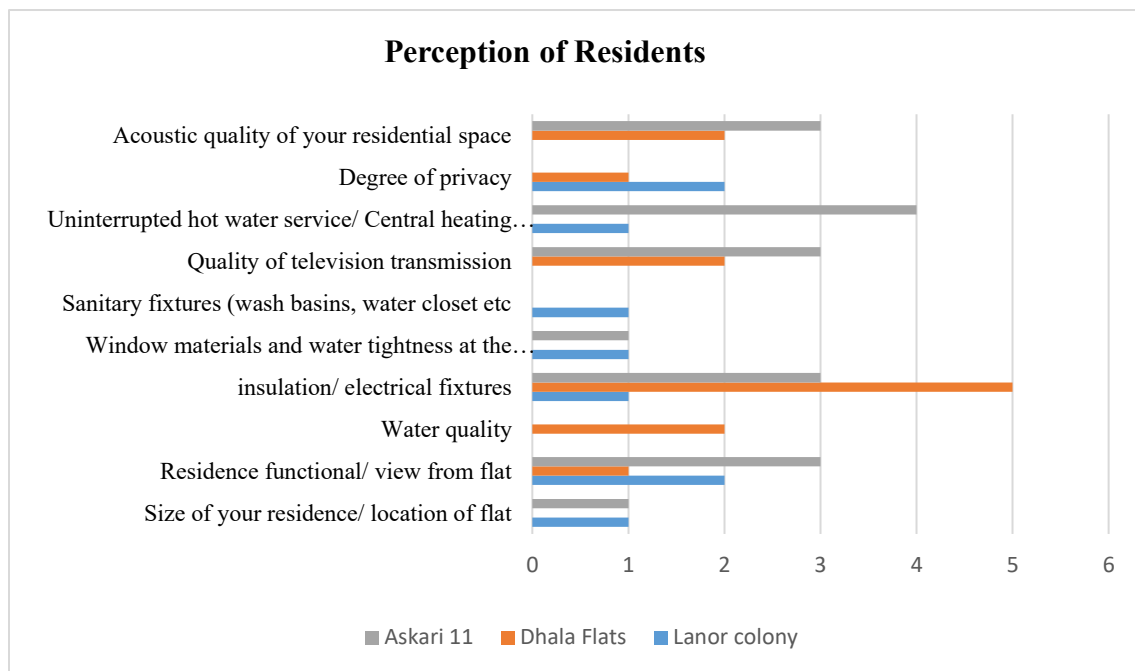


Fig 1: Perception of Residents

According to the satisfaction survey results from the three case study regions of these buildings, several adjustments still need to be taken into account. The actual situation described in this essay can provide some pointers for future growth. Future development should also take into account

additional aspects, such as nearby growth. The occupants' pleasure when all the apartments are occupied and the sustainability criteria that must be adhered to are both crucial considerations for the new development.

Table no.4: Crosstab

Crosstab		Organization name			Total
Count		Labor colony	Askari 11	Dhalla Flats	
Effectiveness of Apartments	Rules and regulations have some flaws	1	0	0	1
	More incentives to officers should be provided. More staff & machinery needed in planning department	1	0	0	1
	The bylaws must be prepared keeping in view the need of the area rather than being generic	7	1	8	16
	I don't know	0	12	10	22
Total		9	13	18	40

5.3. Description

The variables in the case study sections were examined using the chi-square test. With an average rating, respondents expressed very high satisfaction with the inspection process, particularly with the manner the people doing the inspections treated them. Respondents overwhelmingly concurred that their neighborhood is welcoming and diverse and that they would highly advise a friend or family member to live there. The value they get from their apartment for the rent they pay as well as the prompt information they get from owners also receive good marks from respondents.

The longest wait times were recorded by residents of single-family homes and apartments with inner hallways. The likelihood that these respondents would say that their house was their first choice was likewise noticeably higher. The proximity of a bus line (60.0%) and the availability of neighbouring grocery stores and restaurants (44.4%) were cited as the two main factors in individuals' decisions to dwell in particular areas. A little more than 70% of respondents said they do not smoke, and about 54% said they think their building should be smoke-free.

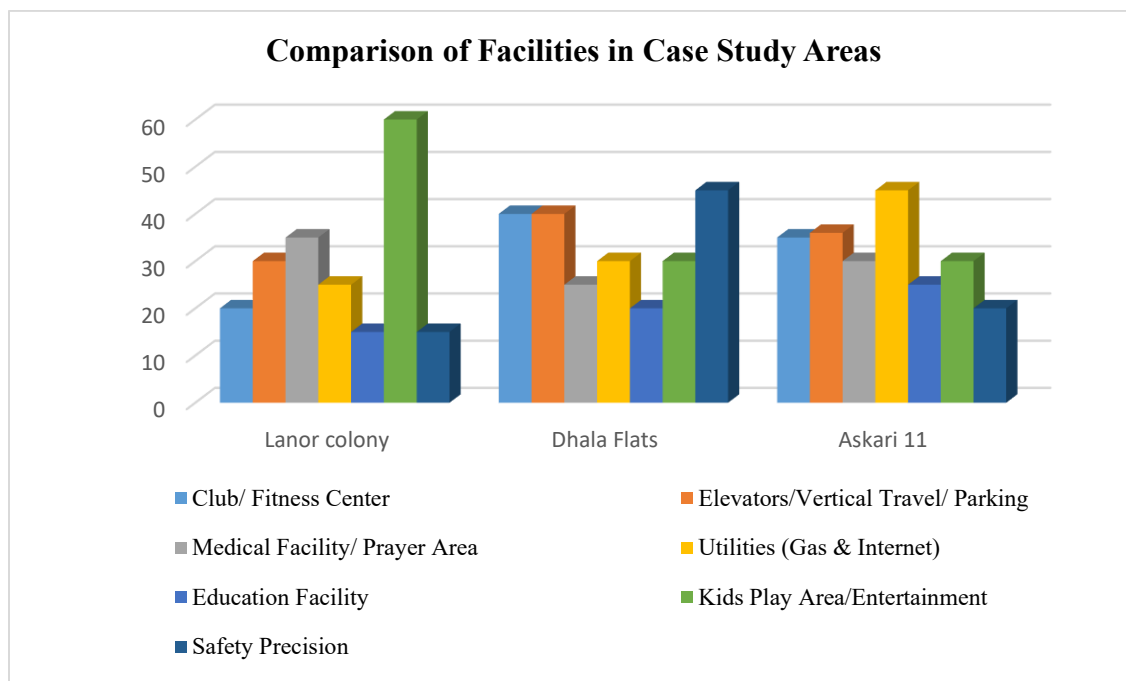


Fig 2: Comparison of Facilities in Case Study Areas

The majority of apartment buildings in Lahore were created by several firms using various standards. New residential building regulations and standards for house design maintain the style and caliber of dwelling, which is linked to good residential satisfaction. Second, neighborhood-level actions are suggested to improve community facilities and services, particularly healthcare, accessibility. In the meantime, Lahore's compact development promotion needs to be rethought.

The number of inhabitants who would desire to settle there would decline if the population density was too high because it would lower residential satisfaction. It is important to recommend a suitable population density that takes into account both residential satisfaction and compact development. Finally, it's critical to promote apartment developments with a mix of residential and commercial uses.

5.4. Expert feedback (perception of property advisors, students, architects on apartment buildings)

For determining how individuals feel generally about apartment buildings and their happiness with them four different job categories those working for private corporations, state-owned businesses, the government, or public institutions, as well as college students and unpaid independent contractors were looked into.

In order to enhance this analysis, the author also considered the building's quality from the perspective of the property manager. The majority of them responded to the poll by selecting either, rather than indicating whether they were satisfied

or dissatisfied with the construction quality in their area. Unfortunately, due to the overall caliber of their structure, satisfaction has been picked. This conclusion has been confirmed and is displayed in Table.

Legislation is required to make sure that additional environmental protection measures are done before sustainable development may become the norm. Although best practices and guidelines are useful in highlighting areas for improvement, the bottom line is the key consideration when buying buildings. Apartment buildings are considered financial tools by the majority of developers and customers in the market-driven industry of real estate development.

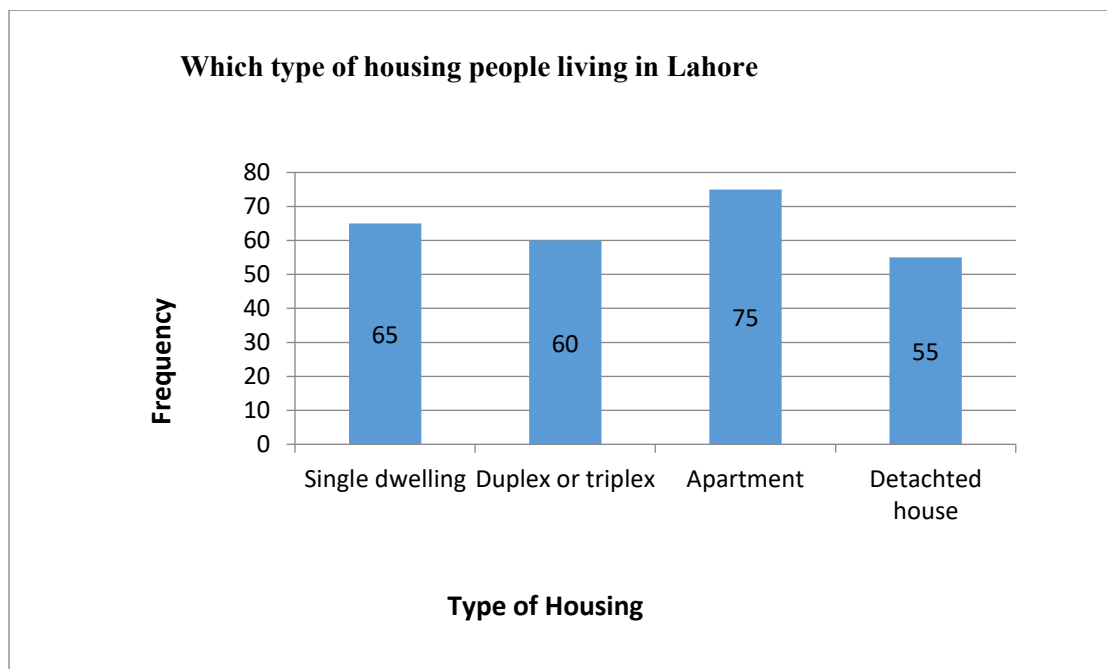


Fig 3: Type of housing people living in Lahore

In the past, people liked to live in detached, large homes that were custom-built for them on land they either bought or inherited. However, the rise in flat buildings demonstrates that more and more

individuals are choosing to live in Apartments in Lahore. According to survey, 75% people likely to live in the apartments and the remaining 25% choose to live single, double or on detached house.

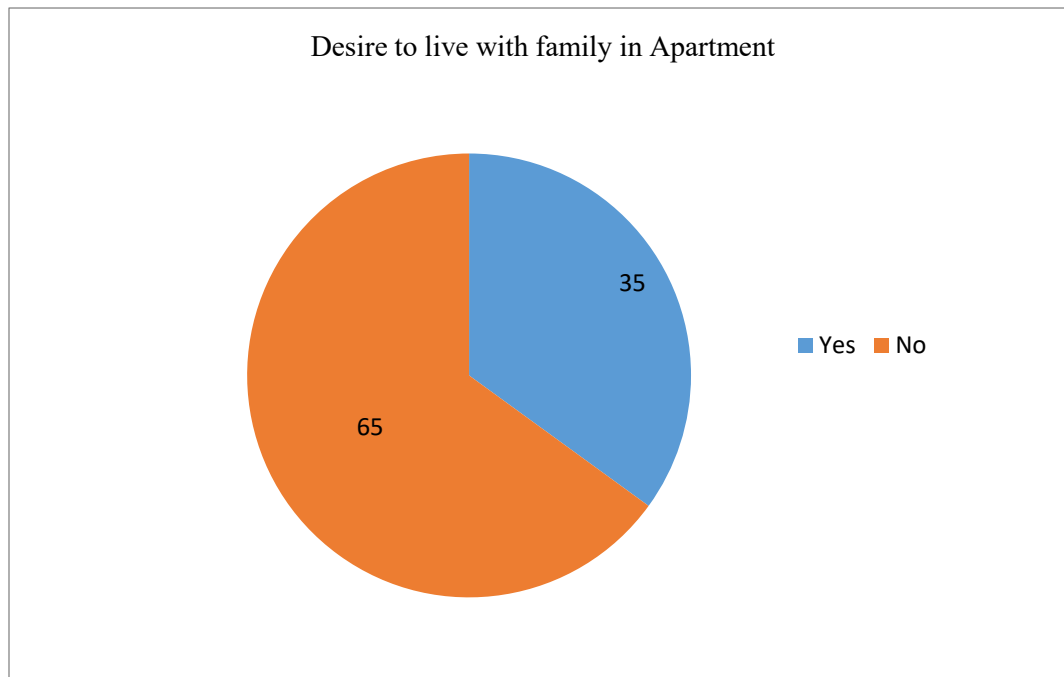


Fig 4: Desire to live with family in Apartment

According to survey, 65% people did not desire to live in the apartments buildings with their family members and 35% agree with living. Living in an apartment gives the advantage of having a community around them.

According to survey, mostly people choose to live in apartment because it is close to their work place. 80% lives in apartment because of location nearest to their daily life activities. 75% people live their because of low rent. In addition to the aforementioned elements, cultural and social aspects that cater to residents' spiritual requirements can also have an impact on their

level of contentment. Unfortunately, flats are not suitable in response to residents' requirements, and occupants have a desire to interact socially and informally with their neighbors. There is no option to choose which people live in the complex, therefore there is less homogeneity and shared culture and socioeconomic position among the residents. There are residents of every class in the flats. The increase in settlement in the apartment brought on by a sense of attachment is beginning to fade. As a result, there is relatively little participation and interpersonal interaction, which breeds societal unrest.

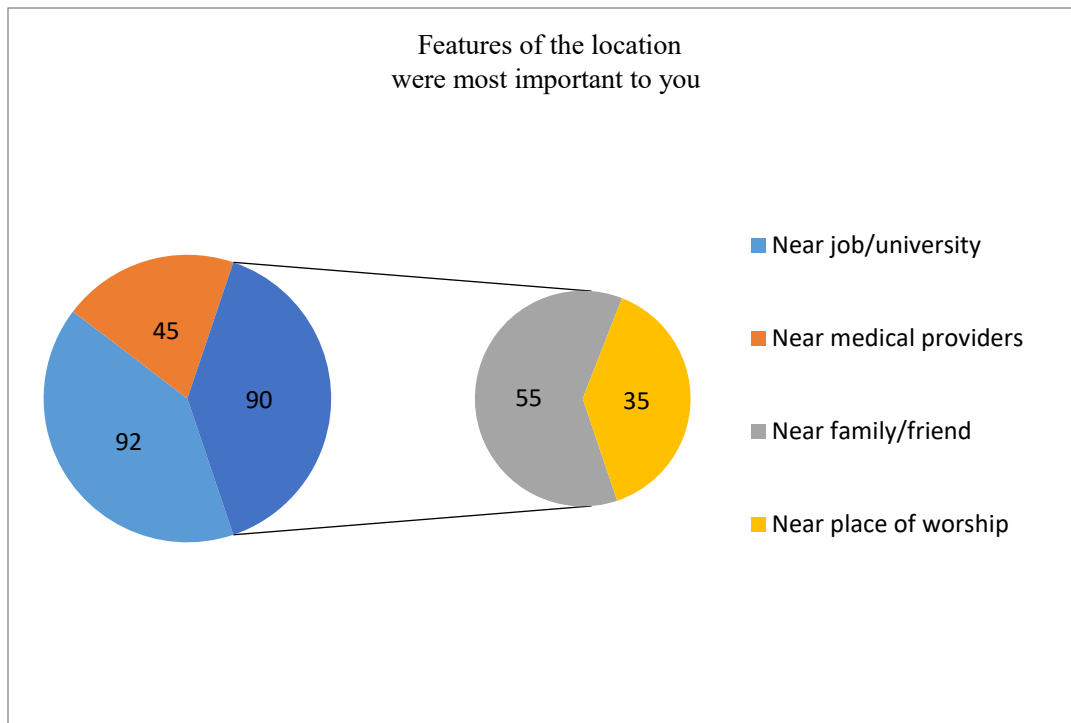


Fig 5: Features of the location were most important to you

Mostly people live in apartment because it is near to their university, office and convenient to fulfill their daily life activities and services. 90% said it is important for them to live in apartment because it is near to their work place, university. Remaining people live their because of family/friends, medical providers, place of worship and others.

Table no.5: Correlations

Correlations

		Correlations						
Variables		Club/ Fitness Center	Elevators /Vertical Travel/ Parking	Medica l Facility / Prayer Area	Utilities (Gas & Internet)	Educatio n Facility	Kids Play Area/Ent ertainme nt	Safety Precision
Pearson Correlat ion	Club/ Fitness Center	1.000	.864	.815	.585	.764	.687	.642
	Elevators/Ve rtical Travel/ Parking	.864	1.000	.861	.815	.563	.614	.585
	Medical Facility/ Prayer Area	.815	.861	1.000	.642	.687	.603	.574
	Utilities (Gas & Internet)	.815	.861	.764	.642	.585	.574	.642

	Education Facility	.687	.614	.603	.585	.574	1.000	.595
	Kids Play Area/Entertainment	.642	1.000	.595	.815	.861	1.000	.687
	Safety Precision	.642	.585	.574	.764	.687	.595	1.000

Table shows that seven variables have been identified by the researchers in which one has been taken as dependent variable; Club/ Fitness Center, Elevators/Vertical Travel/ Parking, Medical Facility/ Prayer Area, Utilities (Gas & Internet), Education Facility, Kids Play Area/Entertainment, Safety Precision. The correlation between first two variables having value .864 shows that public response towards. Additional proof of residential happiness in Lahore's apartments is provided by the research findings. The current study offers policy recommendations for enhancing resident satisfaction by examining the components that affect resident satisfaction. First, it is important to support housing renewal projects since new building levels and building design have the greatest impact on household satisfaction. Government restrictions should be encouraged in the meantime to give real estate firms a standard for dwelling design.

Conclusions

The results of our investigation are much in agreement with those of the earlier research. According to some research, when determining whether to buy or rent a residential flat, the availability of basic utilities is seen as the most crucial element, followed by affordability, layout, proximity, connectivity, environmental/location, recreational activities, and leisure.

A lot of material focuses on inhabitants' satisfaction with reference to complicated amenities and service demand. One of the key elements that attract or repel people from moving to a new setting (a high rise) is a facility or amenity. The lack of amenities and services may have a negative impact on residents' quality of life and increase the time it takes for them to integrate into

new areas (Ho, 2000). One of the key considerations in choosing a place to live is amenities. People are willing to pay for them and demand them (Cheng, 1993). The needs of residents could be met by residential developments built in remote locations with plenty of amenities (Choy, 1995).

For instance, the study's findings show that residents ranked the availability of basic amenities in a complex as being more important than cost, layout, proximity to other amenities and services, connectivity to the outside world, environmental factors, and location. Similar to the previous study, Petersen (1996) discovered that people value location since they don't want to waste time travelling. Significant mean differences between occupancy statuses were discovered, with owners ranking investment, proximity to spouse's place of employment, and proximity to a temple as the three most crucial factors in their decision to buy the flat. It appears that men place a lot of value on their spouse and value being close to their place of employment. The data show that fewer women than men are employed, which makes sense given the trend in the results. Given that they must care for their families and are more likely to follow their religious beliefs, women's priorities are given appropriate consideration in the Indian context. Owners stated that they gave these characteristics a substantially higher priority than tenants. It's interesting to note that regardless of their level of ownership, all residents prioritized the complex's location, security features, apartment price, and amenities. All of the case study areas interact with one another and share comparable cultures, values, and behaviors. They exhibit more stable settlement in the environment as a result of being more content with their living surroundings and feeling more attached to it.

A sustainable solution is necessary to address Lahore's growing and haphazard urbanization. The Pakistani government's top priority for urban growth is vertical growth, but earlier iterations of similar mega plans have failed due to a lack of participation from all stakeholders in policies and plans for managing urban growth. Urban inhabitants are one of the stakeholders in any urban design, and the objective of the recent study was to highlight their perceptions. Resident's satisfaction of the current apartment buildings in Lahore reported pleasure with the building's infrastructure, but this contentment did not support vertical living as a style of housing. Overwhelmingly, most people favored horizontal dwelling to vertical life. Ownership of the apartment did have an impact on tenants' levels of contentment, but ownership and satisfaction alone were unable to increase apartments' appeal relative to horizontal housing.

Ten teenagers were interviewed in-depth about privacy, one of the most prominent difficulties with flat living according to the literature and observation. The adolescents had distinct concepts about privacy, and because apartments lack both aural and visual privacy, they were seen as being less private than horizontal housing by the adolescents. Adolescents use their private time to express themselves freely and engage in self-talk to plan and organize their ideas.

In the case study areas, measures of resident satisfaction with management, functional, physical, economic, cultural, social, health, and facility characteristics were assessed. The research shows that Askari 11 and labor colony are a good sign for resident safety and proper upkeep of the building while it is in use. Appropriate responses to the practical requirements and wants of the occupants include providing adequate skylight for apartment spaces, developing particular places inside the units, and being free of any other buildings. However, the two towers are less significant in terms of the landscape's physical aspects and there are fewer signs of beauty to be found there. They were denied variation of rhythm and harmony in the body due to their hard sculpting and prefabricated concrete façade, which is why they have a homogeneous body. Apart from

the architecture, one of the difficult problems with apartment buildings is that they are often monotonous from outside, which makes their tenants unhappy and uncomfortable most of the time.

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 carefully examine the factors influencing the cultural perception of flat living in Lahore. Future research should highlight how various population segments, such as the elderly or the disabled, view these apartment buildings.

Similar to how flat colonies chosen for this study have open places for play, unplanned vertical development typically lacks this feature. Therefore, it is advised that the demands of various demographic segments be taken into careful consideration throughout the planning stage. The sustainability of vertical growth in Lahore can be improved by doing a thorough analysis of apartment satisfaction among various resident categories.

An inclusive stakeholder analysis should be done, and the welfare of all people should be taken into consideration, to prevent offering unsustainable solutions to the issue of a housing scarcity in Lahore. This information was intended to be given to decision-makers in the housing industry by the current study.

A comfortable community area is important for fostering good neighborliness and a peaceful living environment in apartments. The objective is to gain a thorough grasp of existing design ideas for social areas in apartment and to pinpoint important design factors that are essential for the creation of sustainable high-rise residences. Three primary objectives should be established in order to assist the sustainable growth of apartments:

Create a thorough policy for communal space.

Identify studies on construction materials that can be applied to enhance the ambiance of common spaces.

Identify areas where existing information technology can be used to better plan for and manage open spaces in apartments.

REFERENCES

- Alawode, A., & Rajagopalan, P. (2022). Feasibility of net zero energy high rise apartment buildings in Australia. *Solar Energy*, 231, 158-174.
- Hopkin, D. (2017). A review of fire resistance expectations for high-rise UK apartment buildings. *Fire technology*, 53(1), 87-106.
- Ha, P. T. H. (2018, April). Energy efficiency façade design in high-rise apartment buildings using the calculation of solar heat transfer through windows with shading devices. In *IOP Conference Series: Earth and Environmental Science* (Vol. 143, No. 1, p. 012055). IOP Publishing.
- Jang, H., & Kang, J. (2018). An energy model of high-rise apartment buildings integrating variation in energy consumption between individual units. *Energy and Buildings*, 158, 656-667.
- Kim, D. D., & Suh, H. S. (2021). Heating and cooling energy consumption prediction model for high-rise apartment buildings considering design parameters. *Energy for Sustainable Development*, 61, 1-14.
- Kalantari, S., & Shepley, M. (2021). Psychological and social impacts of high-rise buildings: A review of the post-occupancy evaluation literature. *Housing studies*, 36(8), 1147-1176.
- Lai, Y., Ridley, I. A., & Brimblecombe, P. (2020). Air change in low and high-rise apartments. *Urban Science*, 4(2), 25.
- McMurtrie, R. J. (2020). Aesthetics in the high-rise apartment complex: a social semiotic perspective. *Social Semiotics*, 30(1), 65-88.
- Nethercote, M., & Horne, R. (2016). Ordinary vertical urbanisms: City apartments and the everyday geographies of high-rise families. *Environment and planning A*, 48(8), 1581-1598.
- Nehe, E., Simanjuntak, P., & Tampubolon, S. P. (2021, October). Evaluation of the performance of high-rise building structures with plan 'H'shaped for earthquake with height increase (Case study: Apartment Urban Sky-Bekasi). In *IOP Conference Series: Earth and Environmental Science* (Vol. 878, No. 1, p. 012053). IOP Publishing.
- Nguyen, L. P., van den Berg, P. E., Kemperman, A. D., & Mohammadi, M. (2025). Social impacts of living in high-rise apartment buildings: The effects of buildings and neighborhoods. *Journal of urban affairs*, 47(8), 2894-2915.
- Sazonova, S., Nikolenko, S., Chernikov, E., Dyakonova, S., Sysoev, D., Lemeshekin, A., & Minakov, A. (2022, November). Condition monitoring of multi-apartment buildings. In *AIP Conference Proceedings* (Vol. 2647, No. 1, p. 030018). AIP Publishing LLC.
- Stopps, H., & Touchie, M. F. (2021). Perceptions of thermal conditions in contemporary high-rise apartment buildings under different temperature control strategies. *Science and Technology for the Built Environment*, 27(10), 1492-1504.
- Seo, J. K. (2016). Housing policy and urban sustainable development: Evaluating the process of high-rise apartment development in Korea. *Urban Policy and research*, 34(4), 330-342.
- White, J. T., & Serin, B. (2021). High-rise residential development. UK Collaborative Centre for Housing Evidence.
- Wu, W., & Ge, X. J. (2020). Communal space design of high-rise apartments: A literature review. *Journal of Design and Built Environment*, 20(1), 35-49.