

Relation between Demographic Profiles and Residential Satisfaction Among Iranian Citizens: A Case Study

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Abstract

Housing is a basic human need and a basic human right and one of the most important issues that humans have always been struggling with and trying to find a proper and reasonable answer to this problem. As such, one of the significant aspects in this context is the residential satisfaction from the residents' perspective. Having this mind, residential satisfaction among the city dwellers in most urban areas become highly unclear and for Mashhad's urban areas, there is dearth of knowledge. Therefore, the current study was an endeavor to explore the level of residential satisfaction among the residents in District 11 of Mashhad, Iran and to explore whether residential satisfaction rates differed according to demographic information including gender, job type, age, and residency history. A questionnaire on Residential Satisfaction examining four categories of body, facilities, utilities, and economy using 22 questions, which showed a reliability of 0.81 was completed by 70 participants. The Statistical analyses revealed that residential satisfaction level among the participants of this study was above average and the highest satisfaction rate belonged to the body of the apartment whereas the lowest category went for utilities. Moreover, the residents showed dissatisfaction with parking, followed by garbage collection, and the asphalt in the neighborhood as the biggest concerns; yet, they were highly satisfied with water, electricity, gas, telecommunication and drainage system. As for the demographic data of the residents, it was found that there was no statistically significant difference between males and females in terms of their satisfaction rate, and that no significant difference was found in terms of job type, i.e. governmental or private, while the same results was found concerning the age. Finally, there was no significant difference between residency history and residential satisfaction level.

Keywords: residential satisfaction, demographic data future homes, architecture, apartment building, Iran

1. Introduction

1.1 Background and Motivation of the Study

In recent years, the world has been experiencing a rapid urban growth. People's requirements and notions of home have evolved as a result of globalisation and modernization initiatives (Elahi, 2023). Many people around the world have chosen to move and settle in urban areas (Bougouffa & Permana, 2018). It is of note that one of the basic human needs is to have a place to live in. Housing is a basic human need and a basic human right (Azizbabani & Bemanian, 2019) and one of the most important issues that humans have always been struggling with and trying to find a proper and reasonable answer to this problem (Satarzadeh, 2009). According to the UN, everyone has a right to adequate housing for a reasonable level of living. 2020 (Kshetrimayum, Bardhan, & Kubota) The standard of living is directly correlated with house quality. In addition, urbanisation is a phenomenon that is currently most prevalent in developing nations, where it is accompanied by deprivation, inadequate social and physical infrastructure, and unstable energy supplies (Kshetrimayum, Bardhan, & Kubota, 2020). In order to develop sustainable societies, new ways are therefore required. There must be high-quality, affordable housing that considers the pleasure and wellness of the residents. The degree of satisfaction that inhabitants have with their homes is one of the important factors in this situation. Understanding the variables affecting residential satisfaction is therefore necessary in order to plan an effective and long-lasting rehabilitative housing programme. In Iran, housing has been the arena of architect's art in various historical periods and has followed the cultural and climatic features of its context and economic conditions of its occupants (Azizbabani & Bemanian, 2019). Today, housing design and construction is a major part of any construction activities around the world. In Iran, the growing

population, increasing in rural-to-city migration rates, reduction of household size, and increasing the young population of the country, as well as deterioration and lack of primary necessities in some settlements are the major factors of the country's need for housing production in the recent years (Azizabani & Bemanian, 2019).

Meanwhile, Residential satisfaction (RS henceforth) is responsible for the level of experienced satisfaction by an individual or a family member with regard to their current residential situation (Ghafourian & Hesari, 2018). Meanwhile, satisfaction can be a dynamic issue since it depends on the residents' needs and expectations and it has slight variations among settlers in different residences (McCrea et al. 2014). In some studies, it has been approved that RS increases with quality improvement (Afzali Grouh & Andjomshooa, 2018). In many fields of study, RS has been investigated as one of the major indicators of modern life quality (such as Wang & Wang, 2015). Irrespective of economic issues influential in housing provision for low-income groups, providing necessary qualities to improve living conditions in residential environments and obtaining user satisfaction are so essential (Azizabani & Bemanian, 2019). Although in some cases, the studies have assessed the residents' satisfaction with their residence (Mohit et al. 2010; Teck-Hong 2012; Rezaei and Kamaei Zadeh 2012), others have empirically examined effective variables on RS in different countries including Iran (Ghafourian & Hesari, 2016; Nouri & Asad Pour, 2016). Having this in mind, it is observed that in spite of the fact that existing studies have provided strong insight and guidance as to the nature of satisfaction, there is dearth of consensus on the overall pattern and specific mechanism of RS among different groups and various countries (Ghafourian & Hesari, 2018; Huang & Du, 2015). In line with this, it is asserted that residential satisfaction is related to the three factors of the home, neighborhood, and neighbors (Azizabani & Bemanian, 2019).

As one of the metropolitan cities of Iran, Mashhad suffers from issues like population density (Mirkatouli, Samadi, et al., 2018). Having this mind, residential satisfaction among the city dwellers in most urban areas become highly unclear (Bougouffa & Permana, 2018), and for Mashhad's urban areas, there is dearth of knowledge. Moreover, as cities got denser, a number of significant urban-related issues, including as social inequality, insecurity, traffic congestion, environmental degradation, and primarily inadequate housing, developed. 2018 (Bougouffa & Permana). It is crucial to carefully investigate this sector and determine how it links to people's overall quality of life because numerous scholars have concluded that the housing sector greatly predicts people's quality of life. 2018 (Bougouffa & Permana). Analysing the preceding studies makes it clear that there is no set procedure for selecting the appropriate indicators to measure residential satisfaction. Even while some signs are consistent across investigations, each of these studies employs a different set of them that is frequently selected based on intuition. According to Mohit et al. (2010), this indicates that in order to inform public policy, residential satisfaction must be evaluated based on a case-specific context. Thus, it is essential and necessary to take into account the research region as well as the socioeconomic characteristics of the locals. 2018 (Bougouffa & Permana). Bearing this in mind, the present research intends to fill this gap by examining the residential satisfaction in the context of the study, i.e. Mashhad, northeastern Iran.

1.2 Research Objectives and Hypotheses

The objectives of this study are as follows

- 1) To determine the residential satisfaction levels of residents in District 11 of Mashhad.
- 2) To explore the difference between males and females and their residential satisfaction level
- 3) To explore the difference between job types and residential satisfaction level
- 4) To explore the difference between age and residential satisfaction level
- 5) To explore the difference between residency history and residential satisfaction level

The null hypotheses in this study are as below:

H₀1: There is no significant difference between males and females and their residential satisfaction level.

H₀2: There is no significant difference between job types and residential satisfaction level.

H₀3: There is no significant difference between age and residential satisfaction level.

H₀4: There is no significant difference between residency history and residential satisfaction level.

2. Literature Review

2.1 Residential Satisfaction

Based on Kshetrimayum, Bardhan, and Kubota (2020), Home satisfaction (RS) is the idea of inhabitants' level of contentment that results from the discrepancy between anticipated and actual residential conditions. Riazi and Emami (2018) defines residential satisfaction as the closeness to aspiration of residents' ideal dwelling concerning

their present dwelling and the quality of the environment. In other words, a comparison between the user's actual and preferred situation gives the satisfaction level (Kshetrimayum, et al., 2020). Besides, Residential contentment is the difference between a household's actual and expected housing and neighbourhood conditions. When the reality is superior to what the user liked or anticipated, they are satisfied. Kshetrimayum et al. (2010). Since residential satisfaction has an impact on people's psychological well-being, research on it is essential. It is commonly used to evaluate housing quality and living conditions. A measure of how people feel about particular aspects of their living situation is residential satisfaction. The literature that is currently available on the factors that affect residential satisfaction generally focuses on three aspects: housing attributes, neighbourhood characteristics, and resident sociodemographic variables. (Li & Wu, 2013). A residential environment is composed of both physical and social components, and characteristics of the home and neighbourhood are significant predictors of residential satisfaction. 2012 (Buys & Miller). Numerous studies have shown that different sociodemographic characteristics have different implications on home satisfaction. Tao, Wong, and Hui (2014); Mohit and Azim (2012). However, the findings remain inconclusive (Kshetrimayum, Bardhan, & Kubota, 2020).

As stated, a key component of livable cities is the residential satisfaction of their inhabitants. To achieve, maintain and improve residential satisfaction, it is essential to gather detailed insights regarding opportunities and obstacles at the district, neighborhood and apartment level (Kabisch, et al., 2022). Appropriate study results deliver arguments, recommendations and proposals that enable municipal and planning institutions and housing providers to make targeted and tailored decisions. Residential satisfaction as a positive evaluation of both the physical conditions and intangible elements of the residential environment is an often debated concept in urban and housing studies. A number of residential satisfaction studies have focused on cross-sectional data - the analysis of influencing factors at a fixed point in time (e.g. Wang & Wang, 2016). Such factors include socioeconomic characteristics, housing and neighborhood attributes, environmental amenities, as well as the relationship between resident preferences and objective conditions (Kabisch, et al., 2022). Assessing and monitoring housing and neighborhood quality has become very important in developed countries to ensure and maintain residents' satisfaction (Bougouffa & Permana, 2018).

2.2 Studies Reporting the Iranian Context

Elahi (2023) looked at the extent to which architects use cutting-edge techniques to meet the needs of dwellings in the post-Pandemic age as well as the architectural requirements and preferences of the people. Semi-structured interviews were employed to gather the data in order to complete these. Purposive sampling was used to select ten residential block inhabitants and a total of eight architects. Thematic analysis was used to process the interviews. The majority of architects claimed that autonomous structures, energy-related design alterations, more human-centered design concepts, green open spaces, and cutting-edge technology are the most significant new solutions to meet the needs of homes in the post-Pandemic era. Residents' architectural requirements and preferences in the post-pandemic period included HVAC systems, green open spaces, bad designs, and a lack of self-sufficient measures. The results of this study have been the subject of further discussion.

Ramyar, Hayati, et al. (2019) examined divergences – resulting in environment quality – from residential complex construction in Iran. For this goal, at the beginning some main concerns related to environmental quality are explained, and then related issues are examined. Finally, the quality of open spaces in residential complexes in Tehran, the capital of Iran, is discussed. It is concluded that the residents are not adequately satisfied by the quality of open environment provided by their housing units.

In 2019, Azizibabani and Bermanian examined how the incremental housing strategy affected how contented homeowners felt in their properties. The key tool for the descriptive-analytic research methodology's data collecting was the case study. The results showed that indicators influenced by the incremental housing approach, such as ownership of land and buildings, provision of a technical and spatial basis for future development, quality improvement, and strengthening of social interactions among residents, were the most significant determinants of residential satisfaction, in addition to site design-related indicators. High levels of residential satisfaction led to a strong sense of place and, to a greater extent, social sustainability. In order to maximise the effectiveness of the advantageous qualities of this strategy, a model for defining the stages of work and important activities was developed.

Mirkatouli, Samadi, et al. (2018) examined housing in the city of Mashhad. From the results of the measured socio-economic variables of citizens, the highest coefficient was obtained by districts 1 and 9, while districts 5 and 3 had the lowest value. The existence of a positive and direct relationship between socio-economic variables of the residents and land and housing prices, and the significance of the test were approved. The results of the impact of socio-economic variables on land and housing prices showed that the variables of income, occupational status, and

educational level had the highest effect on the price of land and housing, while variables of family size and history of residence had the lowest impact on the price. Furthermore, the coefficient of determination obtained from path analysis diagram showed that 78% of the total changes of the dependent variable (the price of land and housing) were explained by the analytical model.

Ghafourian and Hesari (2018) reported that in recent years, Mehr public housing project has been operating in different Iranian cities, aiming at providing shelter for low-income households. However, no serious sustained study has focused on the link between sense of place (SOP) and residential satisfaction (RS) which could be the key to fulfill social objectives of the project. Therefore, they investigated the relationship between SOP and RS in social housing projects via the framework of a causal model. The survey was conducted on 330 respondents selected from residents in Mehr housing located in Pardis, Tehran. Data analysis results revealed that the model fit in this study is appropriate enough and place identity (PI), place dependence (PD) and place attachment (PA) predict RS directly. Moreover, the model confirmed indirect effects of the three components of SOP on RS, while considering SOP and other variables as mediating factors. The results indicate that not only PI, PD and PA in isolation are predictive factors for RS, but also they can strongly count for enhancing RS while these elements are considered as a unified whole.

Afzali Grouh and Andjomshoaa (2018) tried to establish architectural design strategies which are effective in providing security as an important factor in residential satisfaction in affordable housing. By designing acceptable space in addition to reduce costs in affordable housing, residential satisfaction will increase as well. The research methodology was content analysis; after collecting information through taking notes and coding they come to build security measures including creating appropriate neighborhood, creating active users, designing appropriate physical spaces, increasing visibility, not creating defenseless spaces, privacy separation etc.

Riazi and Emami (2018) attempted to identify the satisfaction factors of 221 residents of Mehr housing projects in Gonbad Kavoos, Iran. Secondly, it examined planning policies, design principles and interaction with neighbors as determinants of residential satisfaction (DRS). The study used mixed method research. The results revealed that ethnicity moderates the relationship between interaction with neighbors and residential satisfaction. So that, among non-Persians, residential satisfaction through interaction with neighbors was more than that of Persians.

The Mehr housing scheme (MHS), a significant initiative of the Iranian government's current development aims, was examined by Etminani-Ghasrodashti et al. (2017) with the aim of advancing theory and practise on residential satisfaction in public housing. Household surveys were conducted in two MHS projects in the brand-new Iranian town of Sadra, and these surveys served as the foundation for this study. Through the gathering of information from a sample of tenants, it was determined whether residents were satisfied with the physical attributes of housing units, public amenities and services, as well as social engagement and cohesion among residents. The results of the descriptive analysis revealed that just one-third of the respondents were content with their living arrangements at MHS. The physical characteristics of the built environment, such as those of the buildings, were found to be the main determinants of respondents' overall satisfaction, while the social characteristics of the housing projects had little to no impact on the contentment of the residents, according to the results of categorical regression. These findings show that social interaction, coherence, and relationships among residents are likely to become less important even though planners largely disregarded the basic desires for physical characteristics of public housing and availability to vital services and facilities.

2.3 Studies on Residential Satisfaction Worldwide

Kabisch, Pöbneck, et al. (2022) investigated the dynamics of residential satisfaction by using data from a unique long-term study. For their analysis they utilized data from a study that was carried out over four decades and involved ten questionnaires. The study looks at a large housing estate (LHE) in East Germany. Their results concerning satisfaction with the estate and the apartments show the continuously high impact of residential comfort and sound insulation, and the declining impact of apartment size. Beyond that, the results reflect the development of this estate and also exemplify the political turbulence that this housing segment faced in East Germany.

Maina (2021) examined relationships between residential satisfaction, socioeconomic and demographic characteristics of residents to address the dearth of user input proffered as a major reason for failure of public housing delivery in Nigeria. The study concludes that demographic profiling of residents is useful in the planning of future public housing developments and projections of support infrastructure. Consequently, updated employee databases ought to be a priority especially in government ministries, departments and agencies. Policies of providing 2-3 bedroom units also require revision as well as flexible plans, which allow for extensions to houses especially increasing the number of bedrooms by residents in future.

Kshetrimayum, Bardhan, et al. (2020) examined the factors which exerted an influence on RS of slum

rehabilitation housing in India. The found that residential satisfaction was significantly determined by internal conditions of dwelling resulting from design, community environment and access to facilities. Gender, age, mother tongue, presence of children, senior citizens in the family, and education moderate the relationship between residential satisfaction and its predictors. The need for design and planning with the user's perspective is highlighted to improve the quality of life.

Aksel and İmamoğlu (2020) investigated the association of neighborhood location with place attachment and residential satisfaction. The results indicated that place attachment and residential satisfaction were positively correlated, in congruence with the related literature; however, neighborhood location appeared to be associated only with residential satisfaction.

Gan, Zuo, Baker, et al. (2019) examined residential satisfaction in Chongqing, China. The results showed the residents neither expressed satisfaction nor dissatisfaction with their current housing situation in the estates sampled. Three key determinants of overall residential satisfaction were public facilities, neighborhood environment and housing policies. In addition, the results revealed that age, education, family income, residence length and housing type have significant impact on residential satisfaction with PRH programs. Consequently, related policy interventions could be introduced to improve the residential satisfaction in public rental housing.

Salisu, Odulaja et al. (2019) examined residents' satisfaction with public housing in Lagos, Nigeria. Findings on residents' satisfaction with housing units and location shows that majority were dissatisfied with space allocation, quality of services, and infrastructural facilities. Findings on residents' satisfaction with attributing components revealed that majority of respondents were dissatisfied with most physical, social/behavioural, public facilities/functional, and timing components, while majority were satisfied with most economic and environmental components.

Li et al. (2019) examined the satisfaction of the relocated renters with the PRH neighbourhood in Wuhan using a generalised ordered logistic model. The research found that neighbourhood and public amenities, average living space, and housing design all had positive and noticeable influence on tenants' satisfaction with their houses. While lease management and property services are also crucial contributors to tenants' satisfaction, rent has a negative and considerable impact. Residential attitude variables like neighbourhood interaction, home comparison, and willingness to live are known to increase tenants' satisfaction with their residences. It is also important to consider the neighbourhood and available amenities when estimating how content elderly people will be. Additionally, there is a significant negative link between socio-demographic parameters including household size, income, occupation, and demographics like gender, age, and socioeconomic position, as well as residential satisfaction.

In their 2018 study, Jun and Jeong looked at the relationship between residential happiness among public housing residents in Korea and the social mix policy, which allows for the coexistence of private and public housing in the same complex. They investigated whether the proportion of public and private housing had an impact on how contented renters in public housing were with their residences. They found that, among those residing in public housing, residence in the independent type, which only consists of public housing, and the random-mix type, which at random mixes private housing with public housing in the same building, are positively related to residents' levels of residential satisfaction. The occupants of the random-mix kind, however, are the least satisfied.

Bougouffa and Permana (2018) looked at the connections between inhabitants' overall quality of life (QOL) and their contentment with the housing market in Malaysia's Bandar Tun Razak. The findings show that respondents' satisfaction with social and communal engagement was only moderate, despite their mild dissatisfaction with the state of safety and their financial status. The implication is that these three categories require improvement. Using exploratory factor analysis (EFA), five new traits were discovered, including house size, neighbourhood quality, public amenities, housing suitability, and housing quality. It was shown that the size of the home is one of these five factors that significantly affects total residential happiness. This sector is also impacted by the size of homes and public amenities.

Yin, Miao, et al. (2018) investigated the satisfaction with the new residential conditions in 5 districts of Jinan city. They established the index system of residential environment satisfaction suitable for Jinan and explored the underlying factors affecting residential satisfaction. Five category factors including: housing physical condition, public facilities, location, property service and corporate image have significant impacts on residential satisfaction. Among the factors, the public facilities such as schools and supermarkets were the main factors affecting the residential satisfaction. At last, a multiple linear regression model of residential satisfaction was set up and elaborated the influence mechanism of the impact of various factors on residential satisfaction, which presents a robust relationship between residential satisfaction and the related controlling factors.

Mohit and Azim (2018) assessed the residential satisfaction with public housing in Hulhumale, Maldives, on

physical features and service provision within the housing unit, public facilities and the social environment within the housing area and their contributions to residents' overall housing satisfaction. The findings show that a majority of the residents are only slightly satisfied, though satisfaction levels were generally higher for services provided and public facilities, compared to satisfaction with physical space within the housing unit and the social environment within the housing area. The study infers that merely providing housing does not ensure success of existing housing development and policies.

Milić and Zhou (2018) tried to identify the factors related to higher residential satisfaction in Serbia. The findings indicate that young people in Serbia had average levels of satisfaction with their housing despite the various problems and lack of privacy they were facing in the apartments. Higher residential satisfaction in this research was significantly predicted by the marital status of our respondents (single people were more satisfied), homeownership tenancy status, independent living arrangement, larger apartment size, greater levels of privacy and higher neighborhood attachment.

Alutaibi (2018) developed a model to establish the relationship between Housing Management, the Maintenance Contractor and Tenant Satisfaction regarding FM services in residential complexes in KSA. Additional residential complex problems included: the poor attitude of the maintenance staff; poor-quality repairs and consumables; the high cost of consumables from the maintenance contractor; delays by Housing Management in the procedures for completing the rental application; and the eviction process. The results also indicated that tenant satisfaction could be improved if the time between failures is longer than thirty months and if there are no complaints about the skills and knowledge of the technicians they employ for the works.

According to Huang and Du's (2015) study on the subject in Hangzhou, China, the neighbourhood setting, public amenities, and housing characteristics were found to be the primary determinants of residential happiness in public housing.

3. Method and Procedure

3.1 Study Area

Mashhad with a land mass area of 30000 acres in 2015 is located at 36° 20' N latitude and 59° 35' E longitude. The elevation of this city is 970 meter and its atmospheric distance from Tehran is 750 Km. The city of Mashhad is situated northeast of the Iran. Encompassing 13 districts, the city is home to the holy shrine of Imam Reza, which is one of the most important Shiite shrines, attracting more than 20 million pilgrims from all around Iran and other Muslim countries each year. This city has a population of 2772287, making it Iran's second largest metropolis according to the Statistical Centre of Iran (2011) (Mirkatouli, Samadi, et al. 2018). Figure 1 displays the context of this study, i.e. Mashhad.

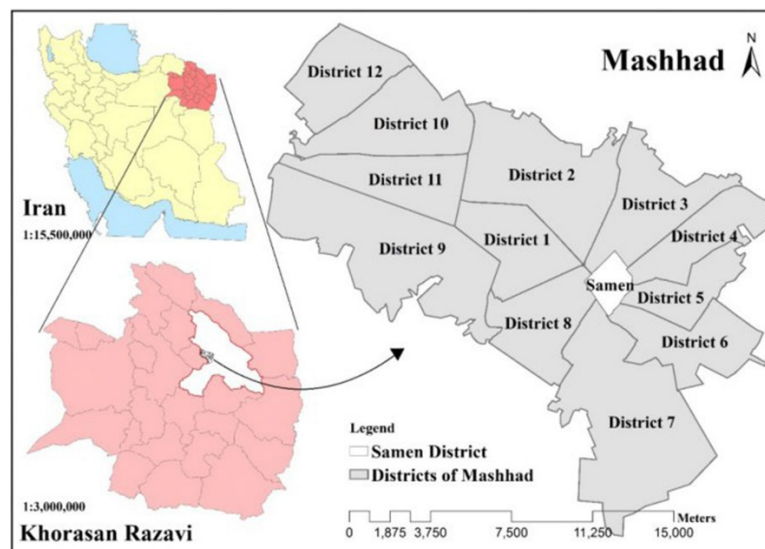


Figure 1. Mashhad Municipality Districts, adopted from Soltanifard, Roshandel, & Ghodrati (2020)

3.2 Research Instrument

A questionnaire on Residential Satisfaction was introduced recently by Sharghi, Nadoomi, Saleh Sedghpour, and

Sheybani (2022) which was reconstructed, validated, and normalized, while being abbreviated. The questionnaire contained 22 questions, focusing on four main categories, namely housing body (questions 1-8), facilities (questions 9-12), utilities (13-19), and economy (20-22). The validated questionnaire yielded a high reliability of 0.89 (Cronbach's alpha), as reported by Sharghi, Nadoomi, Saleh Sedghpour, and Sheybani (2022). The original version of this questionnaire was in Persian, and a translated copy is presented here in Table 1. The answers were given based on 5-Point Likert Scale, ranging from 1 (very Little) to 5 (very much).

Table 1. Residential satisfaction questionnaire adopted from Sharghi, Nadoomi, Saleh Sedghpour, and Sheybani (2022)

Residential Satisfaction		Very	little	average	much	Very
		little				much
		1	2	3	4	5
1	How satisfied are you with your type of housing?					
2	How satisfied are you with the size of your home?					
3	How satisfied are you with your housing safety issues?					
4	How satisfied are you with the number and size of the rooms?					
5	Body How satisfied are you with human density and crowding in your housing?					
6		How satisfied are you with the sound level in the residential unit?				
7		How satisfied are you with the smell in the residential unit?				
8		How satisfied are you with the air condition and ventilation in the residential unit?				
9	How satisfied are you with the state of educational facilities around your home?					
10	Facilities How satisfied are you with the state of medical facilities around your home?					
11		How satisfied are you with shopping centers around your home?				
12		How satisfied are you with the entertainment centers and green spaces of your home and its surroundings?				
13	How satisfied are you with water, electricity, gas, telecommunication and drainage system?					
14	Utilities How satisfied are you with garbage collection?					
15		How satisfied are you with parking?				
16		How satisfied are you with the street lighting?				
17		How satisfied are you with the facilities for the disabled?				
18		How satisfied are you with the asphalt of the roads?				
19	How satisfied are you with overall services offered?					
20	Economy How satisfied are you with the price of your land and housing?					
21		How satisfied are you with the economic return on investment?				
22		How satisfied are you with your income?				

3.3 Research Design and Sampling Procedures, and Data Analysis

The design of this research study was quantitative, investigating the whether the demographic information of the residents differed across various categories when it comes to residential satisfaction. First of all, some inclusion criteria were taken into account. The participants were the ones having the experience of living in apartment

buildings, owning the place, and having residency history more than one year in the neighborhood or the same building, and the ones who were above 20 years old. Having these criteria in mind, purposive sampling was used, which is a form of non-probability sampling. As such, the residents living in either high-rise buildings or apartment buildings who lived in District 11 of Mashhad were chosen, and by the help of municipality of District 11, they were identified. The questionnaire of the study was sent to them, and out of 95 questionnaires, only 70 were complete, and were used for the purpose of analysis. Afterwards, the results collected via the questionnaires were transferred into SPSS Version 25 for further descriptive and inferential statistics.

3.4 Demographic Findings of the Participants

As stated earlier, in this study, totally 70 residents who owned their own apartments, residing in District 11 of Mashhad agreed to participate in this study. In terms of gender, it was found that of 70 participants in this study, 58.6% were males while 41.4% were females. Table 1 displays the information related to the participants' gender. In the matter of jobs, it was observed that 44.3% of the respondents held governmental jobs and 55.7% worked in the private sector. Table 2 exhibits the job related information. As to age, it was acknowledged that 15.7% of participants were 20 to 29 years old, 28.6% were 30 to 39 years old, 35.7% were 40 to 50 years old and 20.0% were older than 50 years old. Age information are shown in Table 3 below. With regards to residency duration, it was found that 11.4% of participants were 1 to 5 years, 35.7% were 6 to 10 years, 34.3% were 11 to 15 years and 18.6% were 15 years and more resident in the area. Information about residency duration is displayed in Table 2.

Table 2. Descriptive statistics of the participants demographic

	Frequency	Percent	Valid Percent	Cumulative Percent
Gender				
Male	41	58.6	58.6	58.6
Female	29	41.4	41.4	100.0
Job				
Governmental	31	44.3	44.3	44.3
Private sector	39	55.7	55.7	100.0
Age				
20-29	11	15.7	15.7	15.7
30-39	20	28.6	28.6	44.3
40-50	25	35.7	35.7	80.0
50 and above	14	20.0	20.0	100.0
Residency duration				
1-5	8	11.4	11.4	11.4
6-10	25	35.7	35.7	47.1
11-15	24	34.3	34.3	81.4
16 and above	13	18.6	18.6	100.0
Total	70	100.0	100.0	

4. Results and Findings

4.1 Results Related to Objective One

The first and the most significant action in analyzing the data was to determine the reliability of the questionnaire. To accomplish this, Cronbach's Alpha was used, revealing a reliability score of .081. This implies that the questionnaire was highly reliable, and that previously, Sharghi, Nadoomi, Saleh Sedghpour, and Sheybani (2022) reported a reliability of 0.89 (Cronbach's alpha). Table 3 reveals the Reliability Statistics related to the study questionnaire.

Table 3. Reliability score of the questionnaire

Cronbach's Alpha	N of Items
.081	22

Having attained the reliability score of the questionnaire, the descriptive and inferential statistics were performed. The first objective of this study was to determine the residential satisfaction levels of residents in District 11 of Mashhad. As such, the results of the analysis revealed that the residential satisfaction level among the participants of this study was 3.98 (SD=0.16), implying a rather above average (out of 5) satisfaction rate. In further details, it was found that based on the four categories being analyzed through the questionnaire, the highest satisfaction rate belonged to the Body of the apartment with a mean of 4.07 (SD= 0.20), which is almost much satisfied based on the 5-point Likert scale. The second item showing much satisfaction was the facilities which attained a score of 4 (SD=.25). the next category was the economy, which received a mean score of 3.1 with SD of 0.31. Yet, the lowest category went for utilities, which got a mean of 2.54 (SD= .21), implying that the residents in district 11 of Mashhad were little satisfied (or dissatisfied) with the utilities in their neighborhood. Table 4 presents the descriptive data on residents' satisfaction in District 11 of Mashhad.

Table 4. Residential satisfaction level among the participants

	Body	Facilities	Utilities	Economy	Overall Mean
N	70	70	70	70	70
Mean	4.07	4.00	2.54	3.19	3.98
Std. Deviation	.20	.25	.21	.31	.16

To conclude, while it was found that the residential satisfaction of the participants in this study was above average and close to much (3.98 out of 5), they were most satisfied with the body of their housing and the facilities in the neighborhood, while they were dissatisfied with the utilities offered in the neighborhood. Figure 2 represents the ranking in details based on the four categories in the questionnaire in this research.



Figure 2. Ratings of the components of the residential satisfaction

To do a further detail scrutiny of the questions, more analyses were conducted to find out which items received the highest or the lowest satisfaction out of the 22 presented items in the questionnaire. Interestingly, it was generally found that the residents were dissatisfied with utilities provided in the neighborhood, and this covered questions 13-19. Of these, the lowest mean belonged to question 15, (How satisfied are you with parking?), with the mean of 1.81 (SD=0.45). The minimum given score was 1 and the maximum was 3, showing that almost all the residents were dissatisfied with the parking in their place. The second bottommost item was related to garbage collection, which ranked second and shows that majority of the residents felt dissatisfied with garbage collecting services (Question 14) (Mean= 1.87, SD=.50, Min=1, Max=3). The next problem was related to the asphalt in the

neighborhood (Question 18), receiving dissatisfaction as the others (Mean= 1.88, SD=.52, Min=1, Max=3). Other questions related to the facilities for the disabled and street lighting. However, the highest rated item was question 13, regarding the residents’ satisfaction about water, electricity, gas, telecommunication and drainage system, with a mean of 4.74 (SD=.47), implying that although most dissatisfaction reported in the category of utilities, this item in the utility category received the highest of all in the whole questions. This was followed by being satisfied are you with the sound level in the residential unit and with the with shopping centers around their home, which shows the residents were almost much satisfied (Mean=4.71 and 4.68, with SD of 0.51 and 0.55, respectively (Table 5).

Table 5. Statistics related to utilities

	Q13	Q14	Q15	Q16	Q17	Q18	Q19
N	70	70	70	70	70	70	70
Mean	4.74	1.87	1.81	2.84	1.90	1.88	2.78
Std. Deviation	.47	.50	.45	.43	.54	.52	.61
Minimum	3.00	1.00	1.00	2.00	1.00	1.00	2.00
Maximum	5	3.00	3.00	4.00	3.00	3.00	4.00

Having reported the abovementioned descriptive statistics, and showing the findings related to residential satisfaction, some inferential statistical analyses were to be conducted to address the research hypotheses formulated in this study. The first null hypothesis in this study was as follows:

H₀₁: There is no significant difference between males and females and their residential satisfaction level.

Having conducted the test of normality, descriptive results on the mean of the groups were obtained, and the results revealed that the mean of satisfaction level for males was 4 while that of females was 3.97 as shown in Table 6. To explore whether there is statistical significant difference between the means of the two groups, namely the males and the females, the results of the t-test, as shown in Table 7 revealed that there is no statistically significant difference (p = 0.49). In other words, the proportion of females in this sample does not significantly differ from the hypothesized value of 50%.

Table 6. Residential satisfaction level among male and female residents

Gender	N	Mean	SD	Std. Error Mean
RS male	41	4.00	.16	.02
female	29	3.97	.17	.03

Table 7. Independent samples test results for males and females’ satisfaction level

	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
						Lower	Upper
RS Equal variances assumed	.68	68	.49	.02	.04	-.05	.11
Equal variances not assumed	.68	60.13	.49	.02	.04	-.05	.11

The next demographic data was about the residents’ jobs in two distinctive categories of private sector versus governmental occupations. As seen in Table 8, the means for governmental was 3.95 while that of private sectors was 4.01. The second null hypothesis in this study was as follows:

H₀₂: There is no significant difference between job types and residential satisfaction level.

To test the null hypothesis and explore whether the means are statistically different, an independent sample t-test

was conducted, revealing that statistically there was no difference between the ones with governmental jobs and private sector in terms of their residential satisfaction, as the p-value was .120, as tabulated in Table 9.

Table 8. Jobs types and residential satisfaction rate

Job	N	Mean	SD	Std. Error Mean
RS governmental	31	3.95	.18	.03
private sector	39	4.01	.15	.02

Table 9. Independent samples test results for job type and satisfaction level

	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
						Lower	Upper
Equal variances assumed	-1.574	68	.120	-.06324	.04019	-.14343	.01695
Equal variances not assumed	-1.539	57.702	.129	-.06324	.04110	-.14552	.01904

The third null hypothesis in this study was as below:

H₀₃: There is no significant difference between age and residential satisfaction level.

In terms of age, there were four groups, namely 20-29, 30-39, 40-49, and 50 and above. Table 10 reveals the mean of satisfaction level among the various age groups, participating in this study. An ANOVA test was conducted to test the null hypothesis and to compare the means and find out whether the groups statistically were different. Table 11 depicts that the significance value is 0.427 (i.e., p = .427), which is bigger than 0.05.; therefore, there is no statistically significant difference in the mean of residential satisfaction in diverse age groups.

Table 10. Descriptive statistics related to the means of each age group

Age Groups	N	Mean	SD	Std. Error	95% Confidence Interval for Mean		Min	Max
					Lower Bound	Upper Bound		
20-29	11	4.03	.14	.04	3.93	4.13	3.82	4.18
30-39	20	3.98	.13	.03	3.92	4.05	3.82	4.27
40-50	25	3.94	.18	.03	3.87	4.02	3.64	4.18
50 and above	14	4.02	.19	.05	3.91	4.13	3.64	4.36
Total	70	3.98	.16	.02	3.94	4.02	3.64	4.36

Table 11. ANOVA Results related to the difference among the age groups

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	.08	3	.027	.93	.42
Within Groups	1.88	66	.02		
Total	1.96	69			

Finally, the last demographic data analyzed in this research was about residency history with four categories with the mean for each presented in Table 12. The last null hypothesis of this study was:

H₀₄: There is no significant difference between residency history and residential satisfaction level.

To determine whether the studied groups differed significantly in terms of their satisfaction level, an ANOVA test was conducting, showing that the significance value is 0. 693 (i.e., $p = 0. 693$), which is bigger than 0.05.; therefore, there is no statistically significant difference in the mean of residential satisfaction in diverse groups having different residency history, as reported in Table 13.

Table 12. Descriptive statistics related to the means in each residency history category

Residency history	N	Mean	SD	Std. Error	95% Confidence Interval for Mean		Min	Max
					Lower Bound	Upper Bound		
					1-5 years	8		
6-10 years	25	3.95	.19	.03	3.87	4.03	3.64	4.36
11-15 years	24	4.00	.17	.03	3.93	4.07	3.64	4.27
15 years and above	13	4.00	.11	.03	3.92	4.07	3.82	4.18
Total	70	3.98	.16	.02	3.94	4.02	3.64	4.36

Table 13. ANOVA results related to residency history

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	.04	3	.014	.48	.69
Within Groups	1.92	66	.029		
Total	1.96	69			

5. Discussion and Conclusion

This study was conducted with the aim of exploring residential satisfaction among Iranian citizens in general and to find out whether demographic profile of the residents and residential satisfaction are interrelated. Overall, it was found that the residential satisfaction level among the participants of this study was 3.98 out of 5, implying a rather above average satisfaction rate. Based on the four categories presented in the questionnaire, including the body, facilities, utilities, and economy, the highest satisfaction rate belonged to the Body of the apartment with a mean of 4.07 (SD= 0.20), which is almost much satisfied, followed by satisfaction with facilities with a score of 4 out of 5. Satisfaction with economy came third (mean of 3.1) whereas the lowest category went for utilities with a mean of 2.54, which shows the dwellers in District 11 of Mashhad are dissatisfied with the services related to the utilities offered to the citizens in that district. Among the items which received dissatisfaction in the category of utilities, the biggest dissatisfaction was for parking, followed by garbage collection, and the asphalt in the neighborhood. Facilities for the disabled and street lighting also received the next rate in terms of dissatisfaction. Yet, the most frequent item with the highest mean for the residential satisfaction went for water, electricity, gas, telecommunication and drainage system, reported almost by all the residents. The sound level in the residential unit and with the shopping centers around their home were the next items which received high satisfaction rates by the participants of the study. To further find whether the residential satisfaction of the residents differed according to their demographic profiles, inferential tests results were conducted, revealing that there was no statistically significant difference between males and females in terms of their satisfaction rate. Moreover, no significant difference was found in terms of job type, i.e. governmental or private, while the same results was found concerning the age, showing that there was no significant difference between the satisfaction rate of people in diverse age groups. Last but not least, it was found that there was no significant difference between residency history and residential satisfaction level.

All in all, the disparity between expected and actual living conditions is what gives rise to the concept of inhabitants' feelings of fulfilment known as "residential satisfaction." (Kshetrimayum, et al., 2020) and this demonstrates that residents experienced above-average residential satisfaction in the examined setting. Since

residential satisfaction has an impact on people's psychological well-being, research on it is essential. It is commonly used to evaluate housing quality and living conditions. Another measure of how people feel about particular components of their living environment is residential satisfaction. Therefore, the results yielded in this study could shed light on the ambiguity and dearth of knowledge in this field of study while the city authorities, including the municipality, could possibly benefit from the results found in this study so that not only will it be an agenda for them to maintain the categories which received the highest satisfaction rate, but also to implement plans to enhance and improve the ones receiving dissatisfaction, i.e. utilities in the case of this study. The research objectives being addressed in this study are in line with literature as housing characteristics, neighborhood characteristics and sociodemographic characteristics of the residents have been proposed to be investigated as they are vitally important (Buys & Miller, 2012; Kshetrimayum, Bardhan, & Kubota, 2020; Li & Wu, 2013; Mohit & Azim, 2012; Tao, Wong, & Hui, 2014). The residential satisfaction being average in this study is in line with literature, both in Iran (Ramyar, Hayati, et al., 2019; Azizibabani & Bemanian, 2019; Mirkatouli, Samadi, et al., 2018; Ghafourian & Hesari, 2018; Afzali Grouh & Andjomshoaa, 2018; and Etminani-Ghasrodashti, et al., 2017) and around the world, as reported by others (Gan, Zuo, Baker, et al., 2019; Kshetrimayum, Bardhan, & Kubota, 2020). Since residential satisfaction stands as one of the most important variables affecting the quality of life, well-being, and comfort, authorities and researchers are highly recommended to take prompt actions and cast more attention on the issues related to residential satisfaction.

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