Study and analysis of housing indicators in the metropolis of Mashhad

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Introduction,

The city is a social phenomenon that leads to changes in human interactions with each other. Due to the changes in the city and the demographic changes that are taking place, the need for housing in cities is very much felt. This leads to an increase in residential use in the city, so that in small cities more than 60% and in large cities about 40% of the city is covered by residential use. Housing among human needs is one of the basic needs and a multi-part category that is associated with quantitative and qualitative concepts. This category is the main factor of socialization of individuals that plays a very decisive role in the formation of individual identity, social relations and collective goals of individuals. Housing, in addition to economic anomalies, also affects the spread of social discontent. In fact, housing is one of the indicators of physical development. Today, the issue of housing is one of the complex issues of countries, including Iran. The economic and social importance of housing and job creation and its relationship with many other economic sectors as a suitable tool in the implementation of economic policies in this sector has been the focus of public attention; According to the above, the present article examines and evaluates urban housing indicators in the city of Mashhad based on the 13 districts of the municipality.

Matherials & Methods,

The present study is descriptive-analytical. The method of data collection is library and field and of course the researcher-made questionnaire based on the Likert scale has also been used. The statistical population of the study was 384 samples using Cochran's formula. In the first stage, the city of Mashhad as a general cluster and then based on 13 regions and according to the number of randomly selected samples were interviewed. Cronbach's alpha coefficient has been done for the main research indicators and the research tool has a good reliability. To achieve the result, TOPSIS method, regression, scattering coefficient and to draw graphs, SPSS and Arc-GIS software have been used. Study indicators include:

Hygiene: Quality of sanitation (toilet and bath);Quality of sewage system and satisfaction with waste collection

Installation: Satisfaction with heating and cooling system; Proportion of the number of doors and windows of the residential unit

Welfare: Satisfaction with access to shopping malls; Public transportation; Educational Centers; Health centers

Economic: Satisfaction with housing construction costs; Payment costs (water,

electricity, etc.); Housing repairs

Physical: Satisfaction with the map; area and area of infrastructure; number of rooms; proportionality of the number of people living with the area of the house

Strength: Satisfaction with the materials used; Earthquake resistance

Discussion of Results

According to the results of the questionnaire, 87.14% of the respondents are married, 12.86% are single, 71.43% are property owners and 28.57% are tenants. Of the total population studied, 72.86% were men and 27.14% were women. The highest age group belongs to the age group of 40-49 years with 50% and the lowest belongs to the age group of 20-29 years with 7.14%. In the study of the situation of variable household density in the whole sample population, the highest frequency is related to households with 4 people with 48.57% and single-person families with 1.43% constitute the lowest frequency of the total sample population.In the study of the index of the number of residential units in each floor, the highest share with 50% belongs to houses with the number of one residential unit in each floor and the lowest share is related to houses with more than 6 units, which is 1.43%. The results of the indicators studied in this article are as follows:

1) Health: Based on this index, the level of satisfaction with waste collection; High quality, health services; Medium quality and sewage disposal of residential units are also of medium quality.

2) Economy: based on this index; Component of satisfaction with construction costs; Average, payment costs (water, electricity, etc.); Average and cost of housing repairs; It is average.

3) Facilities: Accordingly, the item of satisfaction with the heating and cooling system with an average rank and the proportion of doors and windows with a residential unit is also with an average rank.

4) Physical: Accordingly, all components related to this index are in the middle rank.

5) Welfare: Accordingly, satisfaction with access to shopping centers and satisfaction with access to public transportation are in the high rank and access to educational and health centers are in the middle rank.

6) Strength: Based on this, both items have been studied in the middle rank.

Regression coefficient: Considering the calculated coefficients, it can be stated that among the 6 studied indices, the health index has a strong correlation coefficient and the strength index has a weak correlation in the study area. The other studied indices also have a moderate correlation.

Dispersion coefficient: According to the calculation of the dispersion coefficient in the study area, the strength index with 76.1% has the highest and the welfare index with 31.6% has the lowest dispersion coefficient.

Conclusions

Fuzzy TOPSIS method (FTOPSIS): According to this method, the health index has the highest weight and the physical index has the lowest weight. According to the research findings, the results of this research can be presented as follows:

1) Due to the many historical earthquakes that have occurred in Mashhad, urban

planning and urban planning should be considered in areas 9, 8 and 7 of Mashhad Municipality.

2) Based on field observations in the eastern part, especially in the eastern and northeastern margins, there is a higher population density and small residential textures. In the western part of the city, especially the southwest and the western end, where urban planning precedes urbanization, suitable residential textures, wide passages and high quality residential units can be seen.

3) Lack of space restrictions and horizontal expansion of the city in different directions and distance from the city center, reduce access to facilities and services, for example, we can refer to District 12 of the municipality.

4) with the expansion of the city to the outskirts; Non-standard villages and buildings have been integrated into the city, which has led to the construction of agricultural lands and foothills and roadsides.

5) Worn and marginalized tissues are seen as scattered spots in all areas of Mashhad, which has caused unsuitable landscape, social anomalies, service problems and reduced quality of housing.

6) Mashhad, as the second metropolis of the country, is one of the most important destinations for immigrants, which has led to suburbanization in this metropolis and has had many effects on the quantity and quality of housing.

7) Due to the age structure of the population of Mashhad and the lack of proper planning, we are currently facing issues such as poor housing, low housing and housing shortages.

8) According to the studies obtained from descriptive analyzes, the average residential infrastructure in the city of Mashhad is between 96 to 115 square meters. Room index in a residential unit; This figure is far from the desired level in Mashhad. According to the statistical population, 71.4% of households own real estate. Infrastructures less than 115 square meters account for 47.32% and above 115 square meters for 52.68% of residential units in Mashhad. These figures show that, given the size of the household in the city, almost a large number of households are still homeless or suffering from housing shortages.

9) In terms of services, more than 95% of residential units in Mashhad have piped water, electricity, city gas, landline telephone and facilities such as bathroom, toilet, kitchen and other necessary facilities and in this regard, residential units in Mashhad They are desirable.

10) In the leveling of 13 regions according to the 6 indices and 22 variables and finally the combined index obtained from the TOPSIS model shows; Areas of Mashhad in terms of health, economy, physical, welfare, facilities and strength indicators have an average of 0.34, which indicates the low score of the indicators and to reach the desired level that the number (1) is one It has a long way to go. It should be noted that this index is above average in two regions 9 and 11 and lower than the average in the other eleven regions, which indicates inequality, heterogeneity and imbalance between regions.

11) According to regression analysis; Health, installation and welfare indicators are the most effective and in the next priority, the indicators are economic, physical and strength in the housing sector in Mashhad, respectively.

12) Findings show that there are inequalities and inhomogeneities in having the studied indicators in the areas of Mashhad, which shows the lack of proper planning and management in the field of housing in this city in recent decades, but these problems only It is not related to this city and most of the metropolises of Iran are facing it.

13) Observations indicate that in the eastern parts of the city, especially in the eastern and northeastern and southeastern suburbs, there is a high population density, fine-grained residential textures, less permeability and high marginalization in the southwestern and western parts of the city. There is good and suitable urban planning, wider and more open residential textures, more permeability, wider streets and alleys, and high quality residential units in Samen area (13) and part of areas 1, 2, 3, 4, 5, 6, 7, and 8, which are the center of District 13 (Samen) and the holy shrine, have worn texture.

14) Another result of these research findings is spatial imbalance according to the studied indicators. This spatial imbalance has intensified migration to the city of Mashhad.

15) Another important finding indicates that there is no proper management in the city of Mashhad and multiple managements in this metropolis have caused losses in the field of housing. Organizations involved in the field of housing in this city include the municipality, roads and urban development, Astan Quds Razavi, endowments and charitable affairs, documents and real estate, etc.

Keywords: Housing, city, housing indicators, Topsis, Mashhad.

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