An Analysis of Urban Livability with Emphasis on Security and Stability Indicators (Case Study: Mashhad Metropolis)

Mohammad Ghanbari  
Ph.D. in Geography and Urban Planning, Ferdowsi University of Mashhad, Mashhad, Iran & A Member of Young Consultants Group of Mashhad Municipality, Mashhad, Iran

Mohammad Ajza Shokouhi  
Associate Professor of Geography and Urban Planning, Ferdowsi University of Mashhad, Mashhad, Iran

Mohammad Rahim Rahnana  
Professor of Geography and Urban Planning, Ferdowsi University of Mashhad, Mashhad, Iran

Omid Ali Kharazmi  
Assistant Professor of Geography, Ferdowsi University of Mashhad, Mashhad, Iran

Received: 2 September 2016  Accepted: 21 April 2017

Extended abstract

1. Introduction

Today different approaches are proposed and used for solving the current issues and problems in cities, some of which are livability, smart city, ideal city, resilient city, child-friendly city, age-friendly city, city of learning, creative city and secure city. Multiple factors affect the livability of a place, of which the presence of people, mixed use, housing, safety and security, sense of belonging, efficiency and the environment can be noted. The crime rate (real) and fear of crime (perceived) has a causal relationship with many of health and wellbeing outcomes. Livability refers to the degree of satisfying society's needs based on the needs and capacities of the people of that society. A livable city is not just satisfaction of physical needs, but its main purpose is giving the feeling of satisfaction with the city to citizens. Mashhad city as the second most populous and the largest religious city of Iran hosts large number of domestic and foreign pilgrims annually. Certainly, the existence of good conditions for urban livability is extremely important, especially in terms of environment. The main goal of this research is the analysis of urban livability with emphasis on security and stability indicator in Mashhad metropolis.

2. Methodology

The research method of this research is practical in terms of goal, and is descriptive – analytical in terms of methodology. Due to the nature of this research, indicators...
related to the security and stability and existence of objective and subjective information, Arc GIS and SPSS software were used for analyzing of data. Indicators examined in this research included 8 indicators (the crime rate of murder, drugs, theft, forgery, group conflict, social evils, financial crimes, crime ratio per person and subjective indicator). Finally, prioritization of different areas of Mashhad city in terms of livability was determined by using multi criteria decision making methods (VIKOR and Entropy models). The population of Mashhad metropolis, with an area of 288,664,457 square meters, was 2,766,258 in 2011 which live in 13 zones.

3. Results and Discussion

There were 27 police stations in Mashhad metropolis in 2012. From the total 27 current police stations in the city of Mashhad, a number of 25 police stations are active and two are inactive. Among these 25 active police stations, operating radius of 2 police stations of passenger terminal and airport is limited to the same areas. The majority of police stations are distributed in the center and east of Mashhad city, while their distribution in the western part of the city is significantly lower than other areas. This issue is remarkable with regard to the formation of the primary core of Mashhad city and its growth to west direction in recent decades, because western zones of Mashhad city have lower population than the eastern zone of the city. Based on the information recorded in these police stations, the crime rate of murder, drugs, theft, forgery, group conflict, social evils, financial crimes and crime ratio per person were investigated. Then, using the GIS Software, maps related to the status of each of these sub-indicators based on the limits of Mashhad metropolis's zones were drawn. For mental indicator, which includes 7 questions, a questionnaire was used for a sample size of 402 persons in all zones of Mashhad. In terms of crime ratio to person, zones 2 and 9 with the lowest ratio have the best position compared to other zones. Furthermore, zones Samen, 12 and 5 with the highest ratio to person have the worst position compared to other zones. The total average of questions related to mental indicator of security and stability in Mashhad city was equal to 3.51. After studying the average of security and stability mental indicator questions, it can be said that zone 11 with the average of 4.06 and zone 4 with the average of 2.72 are the best and worst zones in this indicator, respectively.

4. Conclusion

The zone 11 of Mashhad metropolis is the best zone in terms of security and stability indicator, followed by zones 10 and 9, respectively. By contrast, zones 3, 4 and 6 had the worst conditions in terms of environmental indicator, respectively. Zones 11, 10 and 9 were at ideal level. None of the zones of Mashhad metropolis were at good level. Considering that zones 1 and 12 have 0.486 and 0.437 score respectively, they are placed in the average level. Also zones 8, 7 and 2 are placed in the bad level. Since the final scores of zones 5, 13, 6, 4, and 3 are between 1 and 0.8, these zones are ranked at critical level in terms of security and stability indicator in Mashhad.
metropolis. In other words, about 40% of Mashhad's zones are at security and stability critical level with respect to the urban livability.

**Keywords:** Urban livability, Security and stability indicator, Objective and subjective indicators, Mashhad.

**References (In Persian)**


**References (In English)**


