A Survey on Population Absorption Elements in Villages Surrounding Metropolitan Using Factor Analysis
(Case Study: Qala Khiaban in Mashhad)

Maryam Sharifi Postchi 1 - Jafar Javan2 - Hamid Shayan3 - Mohammad Rahim Rahnama4

1- Ph.D., Candidate in Geography and Rural Planning, Ferdowsi University of Mashhad, Mashhad, Iran
2-Full Prof., in Geography and Rural Planning, Ferdowsi University of Mashhad, Mashhad, Iran
3- Full Prof., in Geography and Rural Planning, Ferdowsi University of Mashhad, Mashhad, Iran
4- Associate Prof., in Geography and Urban Planning, Ferdowsi University of Mashhad, Mashhad, Iran

Received: 11 August 2013 Accepted: 24 May 2014

Extended Abstract
1. INTRODUCTION
Metropolitans are constantly changing and imposing major changes to their periphery due to the increase in population, spatial interactions, and functional relations. The relationships between metropolitans and their surroundings are mainly dominating and unequal by nature. In recent years, after Tehran, Mashhad has experienced the highest urban population growth. This trend is mainly devoted to border areas with a population size of over 800 thousand people in 60 core population sites (urban, rural, etc.) in country sides; the dependence of such population centers to Mashhad as a metropolitan, has excluded the coherence and dynamicity from these population centers, and despite having a high population threshold, has changed many of these cores just to low income residential centers. During recent decades, some of these settlements, such as "Qala Khiaban", after years of lack of effective monitoring, management, and administrative inefficiency, collapse of rural institutions, increase of population and social problems, and multiple social, economic, and environmental problems, have joined Mashhad metropolitan. Given the considerable differences between Qala Khiaban and other villages around Mashhad, the question is what factors have played a role in the selection of Qala Khiaban to live in?

2. THEORETICAL FRAMEWORK
Evaluation of development in suburban areas, depending on their time zone and situation, can be performed using center-periphery theories including, the growth pole, capital productivity, government and urbanism, polarization reversal, regional network strategy, and other possible theories. A phenomenon namely ‘urban sprawl, or ‘unchecked expansion of the city’ will start with increase in population in suburban areas. During urban sprawl- fast and disperse population growth around metropolitans or even small towns- the city grows into the rural areas, and the rural settlements will merge into the metropolitan. Over time, physical expansion of towns and villages toward each other, makes the smaller settlements (villages) integrate and incorporate into the larger settlements (metropolitan). ‘Annexation’, by definition, stabilizes when the borders of a certain urban area spread toward its peripheral and joins the components of its surroundings.

3. METHODOLOGY
The present research was conducted using a cross-sectional method. The data were collected from library and field resources. The data were analyzed using SPSS software program. 11092 families from rural areas were included as the study population in 2011, and the sample size (245 households) was determined using Cochran formula. Different types of questionnaires were designed to meet the best results in 5 different localities of the study area, regarding the diversity in population characteristics. Data analysis was performed using factor analysis. This method was mainly used in order to obtain the weight or importance of each indicator as well as the extraction of combined independent variables (factors). In other words, it aims to discover the simplest model from among the models which deal with the relationships between variables; and also to follow whether the observed variables can be determined based on a smaller number of variables (factors). In the present study, the reasons of immigration among the settlements of Shahid Bahonar town were examined through 27 variables.

4. DISCUSSION
As a result of continuous development of Mashhad during the last 50 years (1335-1385), 90 villages with a population of 192098 people have been merged into Mashhad metropolitan. These areas include the most
powerful rural areas around Mashhad, which have been merged into Mashhad metropolitan due to the least distance with the bigger city. The village of Qala Khiaban joined to Mashhad in 1388 and is now considered as District 4 of Area 6 of Mashhad Municipality.

In factor analysis, the 27 identified subfactors under the main 8 factors explain the causes of migration and tumor growth of Shahid Bahonar town, in a way that factors 1 to 8 include the 89.68% of the overall variance. The first factor ‘affordable cheap housing’ includes 5 variables, and calculates 21.64% of the variance per se, and is presented as the most important factor. The second factor ‘the economy and employment’ which account for18.69% of the variance. The fourth factor includes ‘socio-cultural parameters’ which determine 10.34% of the total variance.

5– CONCLUSION & SUGGESTIONS

During recent decades, Qala Khiaban, has changed its rural and agricultural faces, mainly to a residential suburb. The results of the present study are somewhat similar to the results of a number of studies including: the one conducted by Zia and Qadermazi (2009) in the case of Hassan Abad and Naysar villages carried out in Sanandaj, Dinari’s (2002) study about the integration of villages surrounding the city of Mashhad with regards to their physical growth, Seyyedi’s (2005) research on local- spatial problems of population centers (rural- town) in the border of city of Mashhad, and Kalali’s study (2005) that evaluated the changes in the land use in rural areas around the city of Mashhad. Although incorporation of these communities into larger cities and obtaining a legal urban identity can prevent poor people from immigration to these areas due to relative increase in the value of lands, housing, and rent on the one hand, and prevention of land ownership, land-use change, and unauthorized construction on the other hand, can similarly act as a powerful driving force, and affects the rapid population growth; in these situation, prudence and principled planning are necessary in order to control and regulate the immigration phenomenon.

Key words: Population absorption, surrounding villages, Mashhad metropolitan, factor analysis

References
How to cite this article:


ISSN: 2322-2514  eISSN: 2383-2495