RESEARCH PAPER

Assessing the impact of type of ownership on residential mobility case study: narmak district of Tehran

Mohammad Reza Daroudi, Marieh Barzegaran*

Department of Art and Architecture, Science and Research Branch, Islamic Azad University, Tehran, Iran

Abstract

One aspect of the dynamics of the city is relocation of households from one location to the other residential neighborhoods within the city. This relocating, which has a great impact on the structure of the city, has a variety of reasons. Assessment of the reasons of households' residential relocation, considering that it is resultant from the concept of residential satisfaction or dissatisfaction, is very complex. However, this relocation depends on the type of possession can be done according to the criteria and factors taken from the people. Therefore, present study aimed to analyze and prioritize the importance of residential relocation indicators, with emphasis on the household possession on Narmak District of Tehran. To determine the sample size of the study, the Cochran relationship has been used and 175 questionnaires were distributed in the neighborhood. Furthermore, to set the priority of relocation indicators in two dimensions (owner/tenant), Entropy &SAW method is used. The results indicate the high affinity of owners with higher education and low affinity of unemployed owners for residential relocation (This may be due to fear of losing ownership of their housing units during the fluctuations in the housing market).Tenants also having a high income tend to have successive relocation. Conversely, Tenants who are unemployed and have low income prefer to stay in a residential environment as possible.

*Corresponding Author: MariehBarzegaran ✉ mariehbarzegaran@yahoo.com

Introduction

In most countries, home owners are much less likely to change residence than renters. In the last few decades, the rise in home ownership in many countries has been spectacular. This would imply that the population has become less mobile, which has consequences for the functioning of the housing market at least, if the relationship between home ownership and residential mobility has not changed.

Residential mobility is closely tied to the functioning of the types of house ownership and has important implications for the mobility and the efficient allocation of resources in different districts of a country.

This research addresses the question of what are the effects of home ownership on the probability of residential mobility in one of the most important districts in Iran named as Narmak, which we can see different types of house possession in this area because of its population that causes a lot of interaction in the district, so we can truly access the impact of the different types of house ownership on the mobility of the district.

Today, research on housing in addition to the physical aspects of the study, includes structural, functional and identity aspects of residential environment (Mohit, 2010). Therefore, study of a residential environment due to the influence on important parameters of planning such as quality of life, residential mobility rate and housing demand prediction is important (Brower, 2003). It has been proven that throughout history human move out to maximize profits and minimize losses for improving the living conditions (Stokols & Shumaker, 2012). Thus, the optimal conditions of life such as housing, welfare facilities of the area and other items such as residential satisfaction, quality of life and social dignity are determined as the basis for determining the destination and on this basis; the attraction and repulsion of origin and destination places can be

evaluated. In extensive conducted studies, relocating patterns are influenced by factors such as length of residence, employment status, income, age, gender and family circumstances that on this basis individuals and families try to choose the best option based on their facilities and conditions (Abdul Mohit *et al.,* 2010). On the other hand, relocation of residential households significantly implicated on the land market boom and bust, housing and rent, new housing construction and renovation and repair of existing housing, changes in the pattern of housing and residential density in different parts of the city. Furthermore, family relocation from one place to other residential neighborhoods in the city plays a major role in the formation and social re-change of the city (Forbers, 1978). Although relocation forms and changes the social and demographic structure of the neighborhood, it will be conditioned by the available social structure. Human spatial behavior can be considered as the values and standards experienced at different times and places (Vlist, 2006). These values not only are drawn from the economic, social and cultural rights, but also is the result of the conditions imposed on him. And attention to the values will to explain his trend toward the change in lifestyle and location. The result of this tendency (with whatever motivation) will follow socio-spatial impacts and residential feature of a city or urban neighborhoods generally is shaped based on locating behavior or a decision by an individual or family (Shalyn Claude, 1993).

Nowadays, the subject of residential relocation in different areas of the city is considered because of its inevitable casual correlation between residential relocation and social-spatial structure, and especially it is regarded in the analysis of urban social geography. In urban studies in Iran, analyzing the causes and consequences of rural-urban migration has been emphasized mostly; but despite tremendous impact of urban residential relocations on the social - spatial structure, less attention has been focused on subject of relocation (Daneshpour, 2009). About the

cities of Iran, on the one hand, they are dealth with a wave of migration of rural - urban and on the other hand, socio-economic and lifestyle changes, causing changes in the physical structure of cities and the residential patterns of population. Investigation of the reasons and methods of residential relocation is very important for achieving the governing rules of this trend (Pourahmad *et al* 2011). Studying the formation and social change in urban areas will help the urban planners and managers to consider social reality of each one of these areas in time of planning. In this regard, studying and understanding the dominant household relocation trends, excretion and absorption characteristics of the regions, the factors driving families to move and possibly predict future patterns of these movements will enable the managers and urban planners to select appropriate policies to control and direct social and spatial consequences of this issue (Safayipour and Sajadi, 2008).

The literature on residential relocation topic has considered it as a function of the residential satisfaction or dissatisfaction; but some subjects are less referred to in these studies such as the impact of individual relocation indexes on lessees and owners. It means that we shall investigate the amount of impact of these indexes on residential relocation. Therefore, in this study, we are going to evaluate and investigate this issue and besides the people and households that are not satisfied with their residential places and are going to relocate or vice versa, we want to determine which indicators of relocation in the normal situation is more effective on type of ownership and household relocations. Due to few Iranina studies on residential relocation issue, mentioned indicators are extracted from Western studies and of resources and because of the importance of issue, we tried to use Simple Additive Weighting Method (SAW) for prioritization.

The aim of this study was assessing the impact of type of ownership on residential mobility case study: Narmak district of Tehran.

Material and methods

Research Methodology

Sine each scientific research starts with a unanswered issue in the researcher's mined (Hafezniza, 2003), based on the nature of issue, in this study, descriptive - analytical research method has been used and library and field data collection (interviews, questionnaire and survey) was conducted. The role of ownership, as one of the indexes of satisfaction in the residences of Narmak Neighborhood of east of Tehran was studied together with its impact on willing to relocate. In this regard, initially the residents' ownership on residential properties has been investigated. Then, the relocation pattern is divided based on the possession type based on individual indicators (i.e. age of household head, household type, number of households' head, job status of household's head, education level of household's head, income status, gender of household head and duration of stay). Therefore, the priority of each one for relocation is determined (Table 1). In addition, given that the number of households in the study area is numerous and studding their reviews and information is overwhelming, the below formula is used to determine the sample.

$$n = \frac{NT^2S^2}{d^2(N-1) + T^2S^2} \quad n = \frac{28627(2/58)^2 \cdot (1/85)^2}{(0/05)^2(28627) + (2/58)^2 \cdot (1/85)^2} = 175$$

In order to analyze and explain the role of ownership in the residential relocation, a scale of zero and one is used. And the ranking is done based on SAW technique and steps of this technique are as follows.

In this method, the weight of each indicator is determined using the technique of entropy. To use this technique, the weight of the E symbol value is calculated using equation (1).

Equation (1):

$$E \approx S\{p_1, p_2, \ldots, p_n\} = -k \sum_{i=1}^{n} [p_i . Ln p_i]$$

Equation (2) and Equation (3):

$$E_j = -k \sum_{i=1}^{m} [p_{ij} . Ln P_{ij}], \quad \forall j P_{ij} = {r_{ij}} \Big/ {\sum_{i=1}^{m} r_{ij}}, \forall i, j$$

So that is a positive constant. Then the P-value for every I, J, is calculated using equation (2) and for EJ set Pij can be seen according to equation (3).

Table 1. Individual Factors Influencing Family Residential Relocation, (Source: Authors, Based on Pattern of KristofHeylen, 2007).

	Index	Weighting range	Description
Residential Relocation Indexes	Age of Household Head	18-34 34-45 45-64 65/+	Age of household head by type of ownership is divided in 4 referred cases
	Type of Household	Single With their parents No child With child	In index of family type, with the birth of each child family will faced a concept called stress room. It is in fact the ratio of family members on the residential space. This ratio is an important factor in residential dissatisfaction that leads to relocation.
	Number of household head	0 1 +2	The studies indicated that with rising household heads number, the incomes increased and the demands and needs will change (Chavez, 2005).
	Job Status of household head	Unemployed Employed Retired	In terms of the activity, the unemployed and retired household heads are less willing to relocate.
	Educations of Household Head	High School High School Diploma to Bachelor's Degree Bachelor's Degree - PhD	The residences with less education have less desire to relocate. In contrast, higher education will lead to higher expectations. In addition, the people with higher education will make more money eventually, and relocation will be more possible (Ukoha& Beamish,1997)
	Income Status	Low Middle High	Low income families relocate due to their inappropriate economical status. This can be changed based on type of ownership. It shall be considered that the families with low income will are not relocating to reach a better condition; they simply relocate more because of instability of their houses. This is not the same for the owners (Dawkins, 2006). The income classification in this study is based on report of Statistics Center (IRR 6 Million to 15 Million are low incomes, 15 to 25 million are in middle income and more than 25 is high income).

Index	Weighting range	Description
Gender of Household Head	Male Female	Female-headed households are less likely to relocate than male-headed ones that are related to many factors.
Duration of Residence	Less than 5 years 5 to 10 years More than 10 years	According to research, the longer residence in a residential environment, greater sense of belonging and displacement of residential households are less likely to occur (Varady & Preiser, 1998).

Then the degree of deviation of the data generated by Dj for j-th index is calculated from Equation (5) and available indexes are used to calculate the weights Wj from equation (6):

Equation (5) and Equation (6):

$$d_j = 1 - E_j, \forall j \quad W_i = \frac{d_i}{\sum_{j=1}^{n} d_i}, \forall j$$

Given the vector W is the weight vector of indicators, through selecting appropriate option for A, using Equation (7), and if $\sum_j w_j = 1$ in Equation (8) can be seen:

Equation (7) and Equation (8):

$$A = \left\{ A_i \,\middle|\, \max_i \frac{\sum_j W_j . r_{ij}}{\sum_j W_j} \right\} \qquad A^{\sim} = \left\{ A_i \,\middle|\, \max_i \sum_j W_j . r_{ij} \right\}$$

According to the method presented in this study, and based on what is in the range of zero and one, one means no relocation of household. It means that in the situation the head of households with respect to the ownership / lease it's satisfied and is not willingness to relocate (provided that no life change will happen). Each one of the under study indicators in this study has a specific range in the area of study that is extracted based on information of the questionnaires.

Introduction of the Study Area
Narmak can be considered as the first designed towns with a regular grid of streets in north - south direction and hierarchy. The district is divided into two parts by the Resalat Highway. Part of the region is located in the district 4 of Tehran and the larger part is in district 8 of Tehran Municipality. But both parts are named Narmak. In fact the Resalat Highway changed and separated this region dramatically. Based on the information obtained over 48% of the district population are males and 51.4% are females with an average age between 35 - 45 years. In addition, 94.3% of them are living in single-family housing units, and 7.5 percent of them in multi-family residential units. From the population of the 175 cases studied, 96.44% of household heads were male and only 3.56% of them are female who are divorced or widows. On the other hand, 87.7 percent of the household heads are married and only 12.3% of them are single and in the whole of target population, incomes are between IRR 7 to IRR 35 million. In addition, between the residences of region, 5.1% have high school diploma or less, 63.7% have a degree between high school diploma and bachelor's degree and 31.2% have bachelor's degree to Ph.D.

Results and discussions
Theoretical Framework
The residential relocation is movement of households from one house, neighborhood or district to the other one (Djebuarni & Al-Abed, 2000). The decision is also defined as a result of the stress caused by the incompatibility between the demands of family and real housing status or the natural environment (Alkay, 2011). In studies of residential relocation, this means that households respond to issues related to the residential environment and it will be intense when the current state of the housing fails to meet the demands of the people and gradually it lead to dissatisfaction, and continuous stimulation of desires,

goals and expectations of the person in move (Lu, 1999; Rory Coulter, 2011). Accordingly, residential relocation can be a way to achieve better opportunities and more satisfaction, but this varies according to the household economy. For example, residential relocation in low-income households is not to improve their circumstances, but it is a obligatory move due to lack of stability in housing. In addition, besides to the household economy, some studies paid attention to household relocation between owners and lessees. The researches indicated that ownership and residential stability at certain stages of life, such as marriage or divorce, birth or retirement of households, are more or less highlighted. The events in life are related to the individual characteristics such as age, sex, economic status, and so on, and have a great impact on residential relocation (Lin, 2009). In this regard, the residential relocation has three rules that are common in documents, the rules are as follows:

(1) The significant correlation between the displacement and the age of the person (or household's guardian). In all developed countries, young people between the ages of 20 to 35 years old, are tend to relocation far more than other people.

(2) There is a significant correlation between residential relocation and type of housing units and ownership of residential unit by household. For example, owners have much less relocation tendency than the lessees.

(3) There is a significant correlation between family residential unitsand life cycle events, such as the formation or dissolution of the family, educational and occupational terms. (Dieleman, 2001).

Weinberg *et al* (1981) performed a study in US and Emeren & Leuvensteijn in Netherland found empirical evidence of a negative relationship between transaction costs and residential relocation. They concluded that the homeowners are less willing to relocate (Mendoza, 2006). Ivandis (1987) studied relocation models and selection of type of ownership

in decision making process based on payment. Several years later, Ivandis and Kaan (1996) declared that relocation decisions regarding based on ownership, is a sequential process. They believed that relocation of lessees is due to lack of stability of their residential units but for owners, it is due to the high expectations from the residential unit. On the other hand, following a lot of analysis, it was proved that supply of affordable housing for low-income groups and classes of urban population could be among the reasons people move to areas with cheap land and affordable housing. In the urban community, each class wants different facilities that are competent with their classes. The low income class wishes to have a home and purchase a small and relevantly safe and sound house. The ownership of a residential unit gives them a satisfaction for safety, power and free will sectors and it is a credit for the owner (Simpson & Fowler, 1997). This is in line with the findings of Apgar (2004) who showed the owners are more satisfied than the lessees. Although a sense of ownership over the property gives satisfaction to the owner, not everyone can enjoy the proper housing. There are few people who can afford a proper house and the others shall live in affordable places with lower rents (Aluko, 2011). Strassmann (1991) provided a model for relationships between interventions in the housing market and residential relocation. Chan (2001) examined the negative shocks of the housing market effects on relocating. Housing market studies are important because they show how the search process and assessment opportunities are defined by changes in market conditions. In different studies, housing market is defined according to the household income (Adriaanse, 2007) and the impact of financial constraints on residential relocation (Alkay, 2011 p. 523). Therefore, this adaptation of households and houses are considered at the micro level in at least three geographical scales: (1) In particular, the housing market (urban) households live in which. (2) Demographics and national economic fluctuation and progress over time, and (3) differences in housing policy, wealth and ownership

structure that forms residential relocation process (Dieleman *et al.,* 2000). Börsch & Supan (1993) stated that certain financial actions for rental housing against the owned housing and the mortgage providing structure may explain the differences in preferences of property ownership in the United States, Germany, and Japan (Coulter *et al.,* 2011).

Helderman *et al* (2004) and Huang & Deng (2006) found that homeowners have less tended to relocate than lessees in the Netherlands and China. The reason for this negative relationship between home ownership and relocation is due to the fact that homeowners are faced with high costs for relocation. Also, several studies about the types of residential relocation based on residential property ownership types are concluded but there is relatively little research based on a cretin and selected neighborhood. The main reason is that housing choice behavior is a result of the interaction between needs, wants, and preferences of household and housing characteristics is selected based on selecting a priority to purchase and have a stable house. People prefer more stable neighborhood with less satisfaction and they do not like to be relocated many times. (Clark, 2006)

N=175	Type	Variable
48.6	Male	Gender (%)
51.4	Female	
35-45		Age
94.3	Single Family	Status of Family (%)
5.7	Multi-Families	
94.44	Male	Gender of Household Head
3.56	Female	
12.3	Single	Marriage Status
87.7	Married	
7-35		Income (Avrage – Million IRR)
5.1	High School Diploma and Less	
63.7	High School Diploma to Bachelor's Degree	Educations (%)
31.2	Bachelor's Degree to Ph.D	

Fig. 1. General Information of Narmak Neighborhood.

According to table 2, the weight of each of the types of defined ownership (owner/ lessee) is determined in a range of zero and one. And to determine the hierarchy of relocation indicators based on the type of occupied housing, the weight of each indicator and its importance is determined by the method of entropy. The weight of each indicator is determined by the method of entropy and the mentioned steps in table 3, 4 and 5.

Table 2. Weight of Each Indicator based on Type of Ownership.

Type of Ownership	Age of Head of Household				Type of Household				No. of Head of Household			Job Status of Head of Household			Educations of Head of Household			Income Status			Gender of Head of Household		Duration of Residency		
	18-34	35-45	45-65	65+	single	with parents	No child	With child	0	1	2	Unemployed	Employed	Retired	High School	Diploma to BS	BS to PhD	Low	Middle	High	Female	Male	Less than 5	5-10	More than 10
Ownership	0.4551	0.5703	0.476	0.836	0.4170	0.741	0.750	0.5823	0.9652	0.8555	0.6988	0.8992	0.5141	0.9520	0.830	0.555	0.269	0.9230	0.5244	0.1273	0.7632	0.541	0.612375	0.675411	0.85112
Lease	0.2889	0.410	0.481	0.620	0.2234	0.5982	0.4221	0.3972	0.4987	0.5623	0.4239	0.4873	0.573	0.593	0.752	0.545	0.311	0.730	0.5411	0.367	0.479	0.3285	0.289963	0.523326	0.657441

Table 3. Calculation of Ej (the deviation degree of the information).

Indicator	Category	Ej
Age of Head of Household	18-34	0.9652348
	35-45	0.975633689
	45-65	0.992369
	65+	0.89635698
Type of Household	single	0.965898956
	with parents	0.99214785
	No child	0.9865896
	With child	0.9689752
No. of Head of Household	0	0.9963879
	1	0.9578963
	2	0.9122689
Job Status of Head of Household	Unemployed	0.8789635
	Employed	0.974589
	Retired	0.963589
Educations of Head of Household	High School	099689720
	Diploma to BS	0.984120
	BS to PhD	0.993692
Income Status	Low	0.967852
	Middle	0.8912458
	High	0.974530
Gender of Head of Household	Female	0.926788
	Male	0.99223
Duration of Residency	Less than 5 years	0.9863567
	5-10	0.814756
	More than 10	0.963568

$$E_j = -k \sum_{i=1}^{m} [p_{ij}. Ln P_{ij}], \quad \forall j$$

Indicator	Category	Ej
Age of Head of Household	18-34	0.986635
	35-45	0.958792
	45-65	0.996089
	65+	0.9856333
Type of Household	single	0.9987457
	with parents	0.922214
	No child	0.9689588
	With child	0.985622
No. of Head of Household	0	0.8956589
	1	0.9957741
	2	0.9891236
Job Status of Head of Household	Unemployed	0.9896321
	Employed	0.9896952
	Retired	0.9945668
Educations of Head of Household	High School	0.9859696
	Diploma to BS	0.9856256
	BS to PhD	0.9745689
Income Status	Low	0.8562348
	Middle	0.9745693
	High	0.9856785
Gender of Head of Household	Female	0.9963569
	Male	0.9951112
Duration of Residency	Less than 5 years	0.873698
	5-10	0.8745236
	More than 10	0.9925863

$$E_j = -k \sum_{i=1}^{m} [p_{ij}. Ln P_{ij}], \quad \forall j$$

Table 4. Calculation of Di (the weight of the indicators).

Indicator	Category	dj
Age of Head of Household	18-34	0.013265
	35-45	0.041208
	45-65	0.003011
	65+	0.0142667
Type of Household	single	0.0012543
	with parents	0.77786
	No child	0.0310412
	With child	0.0310248
No. of Head of Household	0	0.0036103
	1	0.0042259
	2	0.0876311
Job Status of Head of Household	Unemployed	0.0102679
	Employed	0.010437
	Retired	0.0054333
Educations of Head of Household	High School	0.0140304
	Diploma to BS	0.01588
	BS to PhD	0.025432
Income Status	Low	0.1437652
	Middle	0.0254307
	High	0.0254723
Gender of Head of Household	Female	0.0036431
	Male	0.004888
Duration of Residency	Less than 5 years	0.0136433
	5-10	0.018525
	More than 10	0.03643

$$d_j = 1 - E_j, \forall j$$

	Age of Head of Household				Type of Household				No. of Head of Household			Job Status of Head of Household			Educations of Head of Household			Income Status			Gender of Head of Household		Duration of Residency			
	18-34	35-45	45-65	65+	single	with parents	No child	With child	0	1	2	Unemployed	Employed	Retired	High School	Diploma to BS	BS to PhD	Low	Middle	High	Female	Male	Less than 5 years	5-10	More than 10	$d_j = 1 - E_j, \forall j$
d_j	0.0347582	0.02426632	0.007631	0.10364302	0.03410105	0.00785215	0.0134104	0.0310248	0.036103	0.0421037	0.0876311	0.1210265	0.025411	0.026411	0.0031028	0.01588	0.006308	0.032148	0.1087542	0.02547	0.063212	0.00777	0.0163202	0.125476	0.007413	

Table 5. Weight of Indicators.

Owners	Age of Head of Household				Type of Household				No. of Head of Household			Job Status of Head of Household			Educations of Head of Household			Income Status			Gender of Head of Household		Duration of Residency			
	18-34	35-45	45-65	65+	single	with parents	No child	With child	0	1	2	Unemployed	Employed	Retired	High School	Diploma to BS	BS to PhD	Low	Middle	High	Female	Male	Less than 5 years	5-10	More than 10	$W_i = d_i / \sum_{j=1}^n d_i, \forall j$
W	0.053674	0.0325896	0.0296356	0.028523	0.0569550	0.002589	0.012220	0.0166325	0.0022628	0.01788562	0.0555677	0.0022269	0.057890	0.014763	0.015242	0.0402390	0.0754766	0.01223	0.035689	0.0685249	0.036985	0.02658	0.06574	0.045623	0.035662	

Lessees	Age of Head of Household				Type of Household				No. of Head of Household			Job Status of Head of Household			Educations of Head of Household			Income Status			Gender of Head of Household		Duration of Residency			
	18-34	35-45	45-65	65+	single	with parents	No child	With child	0	1	2	Unemployed	Employed	Retired	High School	Diploma to BS	BS to PhD	Low	Middle	High	Female	Male	Less than 5 years	5-10	More than 10	$W_i = d_i / \sum_{j=1}^n d_i, \forall j$
W	0.087589	0.07144	0.0636879	0.042023	0.0869550	0.02660	0.062820	0.0561325	0.0122628	0.062668562	0.082301	0.0010	0.065830	0.010	0.003742	0.034530	0.084106	0.02213	0.065689	0.097881	0.046985	0.06658	0.06510	0.05629	0.03412	

After calculating the weight of each indicator (Table 5), the importance of each is depicted in the following fig.. As it can be seen in the diagram, the owners with the head of household with higher education, and the lessees with higher income are more intended to residential relocate. On the otherhand, the household heads with no job, in both owners and lessees has no intention for relocation.
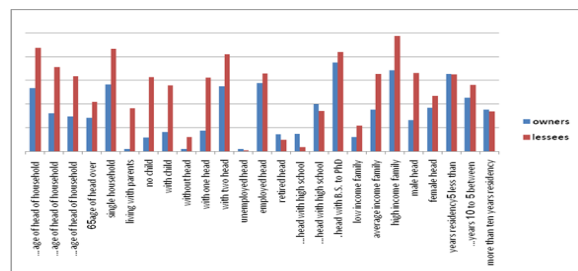

Table 6: The tendency rate of the residential mobility among the indicators of the research.

Conclusion

The study investigated the residential relocations based on type of ownership in Narmak of Tehran. The objective is to prioritize the effective factors on household's relocation. Narmak is one of old neighborhoods of Tehran and due to the expansion of highways and traffic flow; it lost a large number of its residents over the last few years. Now, the study is to prioritize the effective factors on household's relocation based on type of ownership. The study findings suggest that the ownership type has a huge impact on household relocation. Households that own their own houses are willing to relocate their residential houses under certain conditions, but the lessee households because of their type of ownership are faced with instability in their residential places.

Each of the components affecting residential relocation of households by type of ownership over the region is evaluated. Results show a main effect of income, education of head of household, type and age of the household on residential relocation between the lessees and owners. So that households with more income or higher education, or single households or aged 18-34 are more likely to residential relocation regardless of their ownership type. But the amount of relocation is higher in lessees. Households who live with their parents or their guardians are unemployed have a much lower tendency to relocate. But in lessees, the households with unemployed or lower education heads prefer to stay in their residential places. Generally, it can be noted that in Narmakneighborhood, besides residential satisfaction that has a significant impact on relocations, individual circumstances such as income, education, number of head, age of household head, and so on are affecting residential relocations.

References

Abdi Daneshpour Z. 1999. Analysis of the spatial inequality in cities, Safeh journal, published by the Faculty of Architecture and Urban Planning of ShahidBeheshti University, **29**, ninth year

Abdul Mohit M, Ibrahim M, Razidah Rashid Y. 2010. Assessment of residential satisfaction in newly designed public low-cost housing in Kuala Lumpur, Malaysia"; J. Habitat International, **34**, 18-27.

Adriaanse CCM. 2007. Measuring residential satisfaction: a residential environmental satisfaction scale (RESS). Journal of housing and built environment, **22**, 287–304.

Alkay, Elif. 2011. The Residential Mobility Pattern in the Istanbul Metropolitan Area, Housing Studies, **26 (4),** 521–539.

Aluko O. 2011. The Effects of Location and Neighborhood Attributes on Housing Values in Metropolitan Lagos. Ethiopian Journal of Environmental Studies and Management , **4(2)**, 69-82.

Brandstetter MCG, de O. 2011. Consumer Behavior Analysis of Real Estate Market with Emphasis in Residential Mobility, Choice and Satisfaction Brazilian Cases, The Built & Human Environment Review, **4(1)**,56-80

Brower S. 2003. Designing for community. College Park: University of Maryland Press.

Clark W. 2006. Mobility, housing stress, and neighborhood contexts: evidence from Los Angeles, Environment and Planning A, **38**, 1077–1093.

Coulter R, van Ham M, Feijten P. 2011. Partner (dis)agreement on moving desires and the subsequent moving behaviour of couples. Population, Space and Place, Early View, 1-15. DOI: 10.1002/psp.700.

Daniel S, Sally Ann Sh. 2012.The Psychological Context of Residential Mobility and Well-Being,**6(2)**.

Dieleman F. 2001. The geography of residential turnover in twenty-seven large US metropolitan housing markets, Urban Studies, **37(2)**, 223–245.

Dieleman FM, Clark WAV, Deurloo MC. 2000. The Geography of Residential Turnover in 27 large US Metropolitan Housing Markets, 1985–1995, Urban Studies, **37(2),** 223–245.

Djebuarni R, Al-Abed A. 2000. Satisfaction Level with Neighborhood in Low-Income Public Housing in Yemen. Property Management , **18 (4),** 230–242.

Forbers,j IML, Roberston. 1978. Intra-urban Migration in Greater Glasgow; paper given to the population studies Group of the institute of British geographers Glasgow, September, 32-45.

Hafeznia M. 2003. Introduction to Research Methodology in the Humanities, SAMT publisher, Tehran.

Lin HF. 2009. An application of fuzzy AHP for evaluating course website quality. Computers & Education.

Lu M. 1999. Analyzing Migration Decisionmaking: Relationships between Residential Satisfaction, Mobility Intensions, and Moving Behavior, Environment and Planning A, **30**, 1473–1495.

Mendoza GA, Martins H. 2006. Multi-criteria decision analysis in natural resource management , A critical review of methods and new modeling paradigms, **230**,1-22.

Mohit MA. 2010. Assessment of Residential Satisfaction in Newly Designed Public Low-Cost Housing in Kuala Lumpur, Malaysia. Habitat International, **34**, 18–27

Pourahmad A, Farhoudi R, Habibi K, Keshavarz M. 2011. the role of environmental quality of residential place in Urban Migration (Case Study: Old Khorramabad); Human Geography Research, **75**.

Safayipour M, Sajadi J. 2008. Social and spatial causes and consequences of urban migration in Ahvaz (case strudy: Kian Pars) Journal of Isfahan University (Humanities), volume twenty-ninth. **1**.

Shalyn C. 1993. urban dynamics, translated by Nazarian A.,. First Edition, Mashhad: Astan Qods Razavi Press.

Vlist AJ, van der. 2006. Residential Mobility and Commuting. PhD dissertation, Vrije Universities, Amsterdam.