The Role of Urban Services' Spatial Dispersion on creation of Ghetto Quarters in Yazd City and Its associated Social Impact

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Abstract: This study investigated the causes shaping ghettos in the city of Yazd in terms of the indices of education, health, culture, business, sport, green space and social reflections from it. With regard to the coefficient of functions and urban services in ghettos and nearby, it is inferred that above mentioned factors affect forming ghettos and there is a relationship between ghetto and underdevelopment. Based on linear regression, there is also a significant relationship between ghettos and unfair distribution of services and underdevelopment. In addition, the results from the cluster model suggest that the settling in a neighborhood, besides lack of services and functions, other factors were also considered. The other finding of this study has been about social impact of ghettos. Based on the finding, the relatively low-income unemployed people commit more crimes and there is no significant relationship between immigration and social offenses.

Keywords: Spatial Dispersion, ghetto, urban service, social crimes, the city of Yazd

1. Introduction

One of the most important social developments in the recent century is urbanization. The ratio of citizenship in Iran has come from 31.4 percent in 1956 to 68.5 percent in 2006. (Statistical Center of Iran, 2006). Creating neighborhoods and ghettos is one of the consequences of urbanization. The important issue in this context is the impact of urban applications on social and economic classification. Social classification emphasizes inequality and the aim of many geographers is to discover that those inequalities which occur due to the distribution of inadequate resources. This has made urban planners and theorists provide urban planning assumptions about the origins of these inequalities (Arbakaf, 2008; Hanik, 2007; Miller, 1999; Blau, 1982). In this context, David Harvey believes that the only work is to eliminate mechanisms which are governing the system of land use preventing ghettos. On the other hand, the ghetto regions structurally differ from the other urban areas. The purpose of this study ghetto settlers are those who could not be absorbed into economic and social system of the city and they often settle in the suburban land in cities as was done illegally.

The main feature of urbanization in the current Third World is in-harmony and inequality. Dissemination of wealth and the other minorities that live in poverty are considered as the frustrations of urban policy. The consequences of these inequalities are also reflected in the use of space and time which cause low-income groups to reside in the border of cities. This led to the unplanned construction and the formation of ghettos creating a social gradient downwards towards the residence from the core to ghetto areas. Squatting is of the consequences uneven development in the urban system which reflects its structure placing them among poor urban neighborhood. Therefore, when ghetto settlers consider unequal distribution of urban services unjust, they feel that their deprivation has occurred (Kovandzic, 1998; Hyraskar, 2008: 109). In fact, they are considered as an alarm for urban communities and a type of social deviance and damages to the environment which are created in fringe of the cities (Sheikhi, 2001: 200). Therefore, this article reviews the effects of the distribution of urban services and applications on the formation and space distribution of squatting neighborhoods in Yazd. This study also deals with negative consequences squatting due to its impact looking for answers to the following questions.

1 - Has the formation of marginalized neighborhoods in the Yazd city been affected by inequality in land use and city services?
2 - Do non-marginalized neighborhoods in the city of Yazd benefit land use and desirable urban services?
3 - What is the relationship between factors affecting social damages in the marginalized neighborhoods in Yazd?

2. Related literature

The first one who could use the term ghetto was Robert E. Park. Park in his paper entitled ‘Human migration and ghetto human’ knows squatting as a consequence of the political-economic functions (Ansari, 1990: 39). William Foot White (1943) in his book called ‘the Street Society’ clarifies the distinction between neighborhoods. Peter Lloyd from the viewpoints of phenomenology has studied marginal ghettos in the city and has called this type of housing ‘hope ghettos’. ‘Social system of ghettos’ is a work by Satlz (1968) who knows physical space as an essential element in the social processes.

The approach of Urban Ecology analyzes urban location as a place of struggle and survival and as the most appropriate place in urban space (Piran, 2001: 33). In this respect, Ernest Borgs and Lewis believe that the cause of the formation of ghetto is the groups’ focus in poor areas lacking adequate services (Fokohi, 2006: 190-188). In the theory of urban land, city is specifically shaped and spatial system of the city is established due to different groups competing for getting city status. The losers in this competition can cause phenomena such as squatting, ghetto settlement, shanty towns, and so on emerge (Qarkhelo, 2005: 88). Marshall Clinard and Ernest W. Bergess supporting this theory believe that squatting result from division of urban spaces (Clinard, 1966: 18).

In the view of Liberal, the phenomenon of squatting is accepted as a fact trying to optimize ways of living conditions in squatting neighborhoods, granting various kinds of land, loans and controlling governmental land, the matter should be considered Completed.

Based on perspective of political economy of space, in the process of rapid and heterogeneous urbanization, in parallel to unbalanced economic growth, income increases unequally and lack of structural balances in the society will accelerate. This view attempts to investigate the causes and the genesis of ghetto areas and identify the root of the problem. Modern socialists consider squatting as a result of economic-social inequalities. They believe that ghetto neighborhoods are shaped due to these deficiencies, lack of social structural and infrastructural facilities. Sociologists view that the groups and classes who dominate the scarce resources of the city achieve the position of “in the text of environment” and play an important role in the community. This requires driving the classes to the marginal status who are in the position of "biology in the sidelines" and are semi-active or passive in urban activities (Rabbani et al., 2002: 83). Manuel Castells regards squatting as a consequence of social-economic inequalities and heterogeneous urbanization.

Part of the perspective of classification is called ‘relative deprivation model’ emphasizing the dimensions of criminology and social-economic inequality more than the extreme poverty. This feeling of deprivation can be aggravated when people know the unequal distribution of resources as unfair and unable to improve their economic status. The results of several studies have confirmed the expected relationship between relative deprivation and crime (Fowles & Merva, 1996).

The theory of pressure emphasizes blocking social-economic opportunities as a factor leading to crime. Robert Agnyv believes that not attaining positive valuable goals leading people to illegitimate channels. Remove valuable positive motivations (such as divorce) can also cause pressure. Since anyone tries to compensate whatever he has lost, it might lead to crime. Finally, creating pressure may occur because of negative motivations or harmful stimulants (such as corporal punishment and family fight) (Seigel, 199: 180).

3. Research Methodology

Research method of this study is a combination of documentary method, analysis, and field method. To investigate the impact of service and application inequality on shaping ghettos, firstly, six groups of basic services and applications (educational, health, cultural, commercial, green space and sports) were investigated in the neighborhoods. For this study, hypotheses and quantitative analysis of statistical methods and a few models for classification level, including total units of services, standardization of heterogeneous data, Coefficient Model, Numerical Taxonomy Model, the model Morris, Coefficient of Variation Model have been used. The results from these models have been classified by the cluster model or SPSS cluster software. In the next stage, the data gathering tool was a questionnaire that also was analyzed by the data software analysis of SPSS.

4. Squatting and Unfair Distribution of Services and Applications in the city

To measure the amount of inequality, various neighborhoods of Yazd city based on marginalized and non-marginalized were investigated in a separate user and service, using the coefficient of variation model. Based on those, out of 6 in this study, 4 indices like education, health, sports and green space have coefficients of 0.78, 9.58, 2.31 and...
175, respectively in the ghetto neighborhood, but the two other ones (cultural and commercial) show coefficients of 0.58 and 0.64 with the appropriate distribution of ghetto neighborhoods because of the establishment of cultural, religious centers and traditional markets in the old context of the city. Therefore, there is a very high correlation between the unfair allocation and squatting settlement in the city of Yazd. Considering the coefficient of variation of all the indices in marginal neighborhoods (188.9) and non-marginal neighborhoods (14.49), it is inferred that these indices are 13.11 times were unbalanced in coefficient of variation and application was focused in non-marginal neighborhoods which was considered as one of the factors influencing in forming marginal neighborhoods (Table and Table 1).

Table 1 - Coefficient of Variation in various neighborhoods in Yazd

<table>
<thead>
<tr>
<th>Index</th>
<th>Marginal Neighborhood</th>
<th>Non-Marginal Neighborhood</th>
</tr>
</thead>
<tbody>
<tr>
<td>Educational</td>
<td>0.799</td>
<td>0.64</td>
</tr>
<tr>
<td>Health</td>
<td>9.589</td>
<td>2.31</td>
</tr>
<tr>
<td>Cultural</td>
<td>0.59</td>
<td>175.07</td>
</tr>
<tr>
<td>Commercial</td>
<td>0.64</td>
<td>0.87</td>
</tr>
<tr>
<td>Sports</td>
<td>2.31</td>
<td>1.82</td>
</tr>
<tr>
<td>Green Space</td>
<td>175.07</td>
<td>2.57</td>
</tr>
<tr>
<td>Total</td>
<td>188.98</td>
<td>14.49</td>
</tr>
</tbody>
</table>

5. An Investigation of Lack of Development and Squatting Settlement

Lack of development is one of adverse consequences of unfair distribution of facilities in different locations. Therefore, to measure degree of development of districts in Yazd city, the rate of allocation has been used. In this part of the paper, the rate of this factor in squatting was measured and expressed as the coefficient between 1 and -1. To measure this factor, to begin with, the degree of development was calculated through various models of coefficient of variation, Taxonomy, Morris and other models and final degree of development of each area was specified through combination of models in a way that Area 15 stood first, Area 33 second, Area 7 third, Area 12 fourth and finally 39, 19, 38 stood in the last ranks (Table 2 and Map 2). Then, marginal and non-marginal neighborhoods were specified with numerical values 1 and 0, respectively and qualitative data changed into quantitative data. Finally, using t-test method, a correlation was measured between the amount of lack of development and squatting which was 0.035 and since it is smaller than 0.05 is valid (Vahidi Asl, 2006: 91-84). To measure the amount of squatting on underdevelopment linear regression analysis was used (Mahdavi, 1383: 187-178) that this analysis of the correlation coefficient of 0.324 and reliability of 0.039 shows that there is a relationship between squatting and lack of development in the neighborhood in Yazd. However, the hypothesis of the cause and effect relationship between these factors is rejected due to a gap in the number of regression coefficient. So it can be said that there is significant relationship between squatting and unfair distribution of services. But this squatting follows the other independent variables and the compliance rate and its correlation with the other factors compared to other statistical coefficient of variation is 0.676.

6. Classification of Neighborhoods in Yazd Based on the Rate of Urban Services and Facilities

One of the important issues in the analysis of marginal neighborhoods is that to what extent do these neighborhoods basically receive services? And are non-marginalized neighborhoods placed in high level of classification? To study conveniently and to prevent elongating the Table of Ranking, a classification of neighborhood was made based on ranking. For this purpose, the model hierarchical cluster analysis (Kalantari, 1382: 340-330) and SPSS software were used and 41 neighborhoods of Yazd city were divided into 6 levels. Based on analyzed results, all marginalized neighborhoods that have a minimum level of services and applications are placed in level one and non-marginalized neighborhoods of number 7 were placed in level two, number 9 in level three, number 10 in level four, numbers 15 and 33 in levels five and six, respectively.

Placing all the marginalized neighborhoods in 1st level suggests that the marginalized neighborhoods necessarily lack all kinds of appropriate services and applications in allocating space and land. Also, non-marginal neighborhoods have distinct features and every 31 non-marginal neighborhoods necessarily do not have all desirable
and optimal applications. Therefore, being predominantly a marginal neighborhood except lack of facilities, services and applications, other factors and conditions are taken into consideration. Thus, there is a cause and effect relationship and correlation between loss of applications in the neighborhoods and squatting. Therefore, it can be concluded that one of the features of a marginal neighborhood is lack of public services and unfavorable distribution of spaces, but this lack of facilities can be also evident in non-marginal neighborhoods. Therefore, underdevelopment in land use and services is one of factors increasing squatting, but there are other reasons and features in addition to underdevelopment for squatting.


In this part of the research, the social impact as an outcome of squatting will be analyzed. Therefore, out of the effective factors having social impact on squatting, three indices such as immigration, unemployment and income as independent variables and social impact as the dependent variable were studied. Sample had a common attribute of "squatter" and included all the households predominantly located in the neighborhoods of the city. Sample size using the variance obtained from pre-test with confidence level of 95 percent and five percent of the probable error was 282 people (households).

1) Is there a relationship between immigration and social offenses?
Table 3 shows that among people who have committed crimes, 62.5 percent of them were in the birthplace neighborhood and only 37.5 percent of them moved to his birthplace neighborhood and were considered as immigrants. Of course, there was almost the same ratio among those who have not committed crimes. Also, calculated chi-square test indicated that there was not a relationship between two variables (Sig = 0.767). Thus, there was no significant relationship between immigration and social offenses.

Table 2 - Distribution of respondents according to frequency and immigration offenses

<table>
<thead>
<tr>
<th>Committing Crime</th>
<th>Respondents' Birth Places (immigrants)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Birthplace</td>
</tr>
<tr>
<td>Yes</td>
<td>62.5</td>
</tr>
<tr>
<td>No</td>
<td>60</td>
</tr>
</tbody>
</table>

χ² = 0.529
Sig = 0.767

2) Is there a significant relationship between unemployment and social offenses?
According to Table 4, among those people who have committed crimes, 55.6 percent of them mostly are free (unemployed) during the year, while 17.4 percent of those who have not committed crimes during the year are greatly unemployed. Chi-square test indicates that there is a significant relationship existing (Sig = 0.015) between these two variables. In other words, people who are mostly unemployed during the year commit more crimes.

Table 3 - Distribution of respondents according to frequency of offenses and unemployment

<table>
<thead>
<tr>
<th>Committing Crime</th>
<th>Annual Rate of Unemployment</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Less</td>
</tr>
<tr>
<td>Yes</td>
<td>33.3</td>
</tr>
<tr>
<td>No</td>
<td>64.1</td>
</tr>
</tbody>
</table>

Cramer’s V = 0.177
Sig = 0.015
χ²=8.363

3) Is there a significant relationship between family income and social offenses?
As Table 5 shows, among those who committed crimes, 50 percent of respondents’ monthly income was below 150 thousand Tomans and only 12.5 percent of them have a monthly income of 300 thousand Tomans and more, while 12.8 percent of those who have not committed a crime, their monthly income was 150 thousand Tomans. Tests investigating the relationship between two variables above confirm that there is a significant relationship between the variables (Sig = 0.012). In other words, the less income the family has, the higher the crime is.

Table 4 - Distribution of respondents according to frequency of offenses, and household income

<table>
<thead>
<tr>
<th>Committing Crime</th>
<th>Income of Households (Rials 10,000)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Less than 150</td>
</tr>
<tr>
<td>Yes</td>
<td>50.0</td>
</tr>
<tr>
<td>No</td>
<td>12.8</td>
</tr>
</tbody>
</table>

Cramer’s V = 0.194
Sig = 0.012
χ² = 8.818

According to calculations made on such variables, it indicates that there is a direct relationship between unemployment, the rate of income and social crimes, but there is no significant relationship between immigration and social crime.

8. Conclusion
Squatting is one of the consequences of unequal development and malformation in the urban
system. On one hand, significant proliferation of the wealth and on the other hand, the minorities that live in poverty are considered as the frustrations of urban policy. In the process of expansion of cities during recent decades, many towns and villages have been linked to cities and finally have been mingled. All these areas have formed predominantly marginalized neighborhoods in the city of Yazd. Inequalities have emerged in the neighborhoods of Yazd city when using land and space. Therefore, when squatters found unequal distribution of resources and urban services unfair and were unable to improve their social-economic situation they felt deprived and caused them to forcefully commit social offenses.

With regard to coefficient of variation of all indices in marginal neighborhoods (188.9) and non-marginal neighborhoods (14.49), it is deduced that such indices were unbalanced 13.11 times the coefficient of variation and applications were focused in the non-marginalized neighborhood which was considered as one of the factors influencing in squatting (Table 1). On the other hand, based on models of settlement ranking, Area No. 15 stood First, Area 33 second, Area number 7 third, Area 12 fourth and finally 39, 19, 8 and 38 had the last ranking degree of development (Map No. 2). Based on t-test and linear regression, correlation coefficient, 0.324 and reliability of 0.039 indicates that there is no correlation between squatting and unfair distribution of services and lack of development. Based on cluster model, all the neighborhoods placing in marginal level 1 indicates that essentially all marginalized neighborhoods predominantly lack proper application and services in allocating space and land area and non-marginal neighborhoods are also totally distinctive. Each 31 Areas in non-marginal neighborhoods did not have all the desired and optimal applications. Therefore, for living predominantly in a marginal neighborhood, besides lack of facilities, services and applications, other conditions and factors has been involved.

Therefore, it can be concluded that one of the factors in the formation and distribution of space in the marginalized neighborhoods is lack of space and unfavorable distribution of public services. The findings of this research parallel the perspective of urban ecology, which express that the reason why marginalized neighborhood has been is the focus poor poor groups had in poor areas lacking adequate facilities and services.

Another finding of this study about social consequences in which there is a relationship between income and rate of crime among squatters. From the perspective of economic geography, this issue is important. People in squatting areas for various reasons are deprived of having high-income and hardly able to provide livelihoods. Another factor that is significantly related to social offenses is unemployment. Low income and being under economic pressures on one hand and social and psychological pressures on the other hand, has led to wrong ideas that occur to the mind of unemployed people and their felonious behavior and may induce social offenses. The findings of this part of the study is consistent with theories of social classification and pressure, especially deprivation theory claims in which people because of economic problems and lack of income on one hand and comparing themselves with the others who are in the city on the other hand, have a high tendency to commit criminal behavior.

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