

## **Spatial analysis of political participation pattern in the fourth City Council elections (2013), Amol**

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### **Extended abstract**

#### **Introduction**

Contribution of people in election of councils is the sign of development in providing and fulfilling the needs of residents of the cities. By the advent of democracy and development of public right of vote, election has become one of the important display of political life in the current world. It is one of the political development criteria and illustrates the role of people in government. Election rules, their execution and the rate of people contribution in election explain the relationship of government and people and also represent the social condition of that community. There is a wide range of factors in terms of geographical and situational issues overshadowing the type of election decisions. The current research, with the analysis of the number and proportion of casted vote and displaying the effective areas from the political contribution of citizens in the fourth city election (2003) can show the relationship between various social-economical parameters and rate of contribution and also investigation on conceptual analysis of the impact of neighboring areas on the election of city councils in political culture of citizens.

#### **Theoretical principle**

Council is totally regarded as a democratic organization which undertakes the responsibilities to discuss, investigate, and decide on the issues concerning daily life and public affairs. It can be said that city council is a policy maker, decision maker and to some extent law maker in local urban management. It must have comprehensive features and be able to do responsibilities related to policy making and supervision in all the issues concerning urban affairs and respective organizations. Election is a continuous measurement and process within particular geographical area in a set limited time. Foundation and theme of geographical election is based on the concepts such as democracy, political contribution, election, decision making, and election field. The most geographical election impacts are related to election behavior and election patterns. Political contribution has some consequences and impacts on executive

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system because the consistency and efficiency in all political systems needs people's approval and knowing them as valid. It is possible to know election as the most prominent political contribution that can be measured and can be considered as a criterion to evaluate power distribution in society. Since elections are regarded as criteria to recognize viewpoints, interpretations, bottlenecks and problems of society the distribution of election result on the map displays the differences of spatial behavior.

### **Methodology**

This research with the aim of practical and descriptive-analytical design was carried out to analyze spatial pattern of the fourth city council election in Amol City. The needed information was collected by studying documents and referring to offices of municipalities and statistics center. The statistical society of this research is the polling station of Islamic Council of Amol. The design of analysis and interpretation of the data is quantity- concerned and by space analysis and statistics, the data are analyzed to see the effective impact of citizens' contribution in the election and also the significant factors in the election of the member of the city council in the previous election of city council of Amol.

### **Findings**

Election in the council of Amol city experienced many ups and downs in a way that the rate of contribution had the downward trend from 74% in 1998 to 41% in 2015. The proportion of the elected person in the whole votes is very low in a way that the greatest majority among the whole candidates within all rounds is 36. In the following round, this rate was decreased and displaying the phenomenon of "single vote" or voting based on individual recognition. The pattern of vote distribution is dispersed and in the adjacent neighbors no consistency exists in terms of space. Moran Space Criterion shows that only in district 21 the votes are consistent and similar and in other districts there is no significant relationship between the votes. In addition, the graph of Moran shows inconsistency of these criteria, because Moran Criterion is near to the point of -0.7 to -1. Besides, the distribution of the space vote shows the majority of votes were in eastern and western districts of Amol City. Despite the few polling stations in these districts, the votes are more than central district with more polling stations. The literacy variance shows that in the district with low literacy level the rate of distribution is higher and more educated areas were not so willing to participate in the election. Identifying the address and polling stations with higher votes indicated that in all issues there was a relationship between these two variables and the greater majority vote for the selected persons was related to their residence.

### **Conclusion**

The analysis of 4 round of election in Amol City shows that the rate of contribution in election of the third round was 54% and this value was 62% for the fourth round. One of the particular features of election of city council is the "impact of neighboring" on election behavior of the voters that has a clear space in political map of city. In fact, in this condition the political culture of some part of the city has the features in which we have the concept of general city identity, party inclination, effective political contribution, and citizen orientation. The findings of the research show that there is significant relationship between the economical situation and rate of political contribution. Based on the findings, although the invalid votes are higher in educated areas than less educated areas, the educated people have more contribution compared with the illiterate people. On the other hand, as much as the educational level increases, the level of contribution decreases. Consistency between the map of invalid vote of distribution with level of literacy shows that educated people do not trust the map and instruction of the council in advancing the city management system.

**Keywords:** Amol, city council election, political contribution, spatial pattern.

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## Assessment of the impacts of urban transportation policies on improvement of the quality of public spaces in the central Tehran (Case study: Bazar neighborhood)

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### Extended Abstract

#### Introduction

Use of automobiles is increasing as a travel mode in large cities especially in developing countries. It increases the concerns over traffic jam, pollution, and the death of public spaces. Dominance of car on public spaces, particularly in city centers, is associated with difficulty to access to public spaces and makes these spaces available just for essential activities. While nowadays, having the vital urban spaces with the social activities is considered as one of the most important development criteria for cities. Moreover, making and developing public spaces is becoming a competition element of the cities to get more earnings. In one hand, finding a solution to revitalize the public spaces in small and large cities is undoubtedly a significant challenge. On the other hand, it is worthwhile and positive and needs to set the priorities which places are preceding the buildings and traffic. It caused the access of sustainable transportation becomes one of the critical challenge for present and next generations. To solve the traffic problem to regenerate public spaces, urban managers are turning to change the transportation policies. Whole of the various traffic policies try to minimize the car usage in Travel Demand Management. In the present time in Tehran, a large number of public spaces of city center is out of public access due to the increased dominance of private cars. Public spaces in Tehran become more faded and poorer, if this continues. Therefore, urban management is performing several traffic policies in Tehran city center to reduce dependence on private cars.

#### Methodology

With the aim of exploring the impact of traffic policies on revitalizing public spaces, this study wants to introduce the model of how traffic policies influence on improving quality of public spaces in Tehran city center using mixed method. In this research, five aspects are considered for Public space including social- cultural, infrastructure, environmental, and economic dimensions. Then, the impact of two push policies (including car and parking restrictions), and two pull policies (including the improvement of public transport facilities and pedestrianizing) are identified on these aspects. Mix Research Method is used to explore the factors which affect

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the four dimensions of public spaces. As the influences of traffic policies on public spaces are unrevealed, we used Exploring Research Method. Our method comprises three following sections. Firstly, the characteristics of good and livable urban public space are identified through literature reviews. Using qualitative research method, we studied reliable sources including documents, reports and books. Then, four dimensions including social- cultural, infrastructure, environmental, economic are ascertained for a good urban public space. In section two, using Policy Delphi Technique and by semi-structured interviews, we asked 10 people who are expert in fields of transport management, urban geography, urban planning, and urban management to introduce the features of livable urban public spaces which are almost strongly influenced by transportation policies. Eventually, we found that there are no new ideas after 16 interviews, meaning the subject reached to the theoretical saturation. After accumulating the data, the primary research model is designed. In Section three, a questionnaire is designed based on what we extracted from two previous sections. Up to 384 people in a neighborhood in central Tehran titled "Bazare Tehran" have been selected to fill out the questionnaires. Then, we employ Causal-comparative research method to determine the influences of four transportation policies on improving urban public spaces. We choose to analyze our data using a Friedman test. The Friedman test is the non-parametric alternative to the one-way ANOVA with repeated measures. It is used to test differences between groups when the dependent variable being measured is ordinal. Since we aim to compare these four transportation policies in terms of their significant contributions to improving urban public spaces, essentially the Friedman test is used. It can be used when you want to use the same sample of subjects or cases and assess them at three or more points in time or under differing conditions.

### Results and Discussion

The analysis states that environmental, social-cultural, and economic and infrastructure aspects have been most influenced by traffic policies. Our findings show that the pedestrianization policy has improved the economic indicators of public spaces, at 70.3 mean. The median value for socio-cultural dimension is almost 68.86 and it is followed by the figures for environmental and physical and infrastructure dimensions, respectively, at 66.66 and 61.75. The same goes for the influence of parking restriction policy on the four dimensions. This shows 55.78 for economic, 47.59 for socio-cultural, 46.29 for environmental and 42.65 for physical and infrastructure dimensions.

Furthermore, car restriction policy has dramatically upgraded the mean values of environmental, economic, socio-cultural and physical and infrastructure dimensions at 54.96, 50.42, 46.47, and 43.02, respectively. Results for the policy of developing public transport demonstrate the highest mean value for economic aspect indicators at 69.85. The second highest value is seen for criteria of physical and infrastructure aspect with 61.77 mean. They are succeeded by figures for socio-cultural aspect at 61.59 and environmental dimensions at 59.71.

Generally speaking, these results indicate that two pull policies comprising pedestrianization and developing public transport have more influence on improving quality and revitalizing the public spaces compared with push policies, e.g., car and parking restriction schemes. From the magnitudes of the mean value, we can rank the four transportation policies in terms of their impact on regeneration of urban public spaces in Bazar neighborhood. Developing pedestrianization has the largest ratio at 66.65, meaning it is the most influential policy in reviving public spaces. The ratio for developing public transport policy is slightly smaller at 63.23. Average value for push policies is significantly small rather than two previous policies. The policies with the smallest mean value is car restriction with 48.72 and parking restriction with 40.08, respectively.

### Conclusion

It seems wise to integrate push policies, e.g., car and parking restriction schemes, with intensive policies, e.g., improvement of public transportation and development of infrastructure facilities

for walking and biking to improve their impacts on quality of urban public spaces. It is also cleared that people in public spaces are most influenced by the measures which give them more alternatives to travel rather than the measures which limit their travel choices.

**Keywords:** central Tehran, public spaces, quality improvement, urban transportation policies.

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## **The role of neighborhood-based planning for neighborhood sustainable development (Case study: Hosseinieh neighborhood in Zanjan City)**

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### **Extended Abstract**

#### **Introduction**

Zanjan is one of the historic cities of Iran with rapid urbanization. Now its old and historic neighborhoods have been turned into the deteriorated textures. The problems of those neighborhoods have not been solved through projects and programs in urban scale. Hence, this is required to consider the issues in the neighborhood scale to solve them. One of the old neighborhoods of Zanjan city is Hosseinieh neighborhood faced with many physical and socio-economical problems. So far, the city plans have failed to help properly this area revitalization. Hence, the problems need to be solved by the neighborhood and community planning. Researchers such as Watts (2006), Dixon (2011), Colton (2012), Hajipour (2006), The Salek (2007), Rafieapour (2009), Masoumi (2011), Madani (2012) and Rakhtabnak (2014) have used the concept of neighborhood planning and community development in recent years. In this study, we have tried to answer these questions: 1. what is the relationship between community planning and community sustainable development? 2. What is the relationship between the local community participation and sustainable neighborhoods? 3. What is the impact of local planning initiatives and the participation of the local community on sustainable development in the Hosseinieh neighborhood.

#### **Methodology**

The type of study is descriptive - analytical and conducted by the questionnaire survey among neighborhood residents. The universal population of the study is 357 people calculated based on the Cochran's Sample size method. The reliability of the instrument has calculated the Cronbach alpha and value of 88.3 is obtained. In order to analyze the data, we used the several methods such as Pearson's correlation and regression analysis in SPSS software for description and analysis of the statistics.

#### **Discussion**

The findings of this study are consistent with the findings of Rahmati, Reza Zadeh and Slesseleh (2008), with the necessity of neighborhood planning. The research findings are consistent with

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the results of the studies of Madani (2012), Abdullahi and Rkhtabnak (2014) in relation to sustainable development, public service and community initiatives subject. The findings of this study comply with the results of Masoud and Moazzezi (2012). The results of the study are also consistent with the findings of Doiran (2008), Rafieian, and Forozandeh (2011) about the willingness of people to participate. The results of this study with the results of Rafieapour and Gavgani (2009), Forozandeh (2010) and Mousavi, Reza Al-Hashem (2010) in relation to the participation cost, attitude and attitude toward the willingness to pay a city toll authorities and citizen participation.

### Conclusion

The results of this research show that there is a positive correlation between the sustainable development and the index of neighborhood planning. In addition, there is high positive correlation between neighborhood sustainable development and resident's participation. Community planning is the first factor affects sustainable development of study neighborhood and the participation of the local community is the second factor affecting in the issue. Therefore, we have proposed improvement of resident satisfaction, neighborhood environment, residents' awareness of the development projects, the establishment of the Social Development Fund, establishment of neighborhood councils and mayor of the neighborhood, empowerment of management system in neighborhood council, promotion of vertical relationships between local management and staff levels, motivating residents to facilitate the empowerment of local communities and to give more power to local groups, facilitation of the formation and activities of local community groups and networks, strengthening institutions, non-governmental organizations, organizing informal institutions and finally education of youth for participation in community affairs.

**Keywords:** community participation, Hosseinieh neighborhood, neighborhood-based planning, sustainable neighborhood development, Zanjan.

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## Performance assessment of urban renewal organization to environmental improvement (Case study: Worn texture areas of Tehran)

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### Expanded Abstract

#### Introduction

Performance of urban organizations, municipal and other public local institutes is effective on life quality and urban sustainable life. Assessment of the performance of these institutions is considered as constructive and corrective actions for their prosperity. That is why local organizations performance management as a management strategy has attracted the attention of local authorities and led central government officials to scientific and legal measures to improve the performance of local organizations. Among the various countries, the experience of Britain about movement performance assessment management of urban councils was accompanied with success and remarkable initiatives. Performance assessment means the actions and activities conducted to increase the efficient use of resources in order to achieve ends and means coupled with the efficiency and effectiveness. This program was common in most developed countries during recent decades. Some developing countries evaluating the performance of specific legislation considered the component requirements. The purpose of performance assessment is measurement, valuation and judgment about performance of executive bodies of the country according to the rules and regulations, effective criteria approach, efficient, economic and ethical aspects in order to improve the quality of government services. One type of performance assessment is performance assessment by the public. Performance assessment is debatable in this respect; from one side satisfaction of the people plays an important role in the success of the organization in achieving their goals. Citizens who are satisfied about the city council performances with more confidence do their citizenship duties (such as payment and participation in public programs). On the other hand, it can be said that people themselves are only those who can understand their problems as well. Reconstruction and renovation of damaged area of the cities is very important for various cultural, economic, security and social reasons. This topic is more important in city of Tehran and the necessity of build an institution responsible for this case was felt. After the Islamic revolution, urban renewal organization of Tehran in 1994, with the adoption of new articles of association, was quietly looking for a new role. Urban renewal organization of Tehran is in charge of improving the worn out tissues in Tehran so that it can prevent the consequential problems of the old textures in the city. This research attempts to review the urban renewal organization activities in making functions favorable in urban areas, in

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improving the lives of citizens, in solving physical problems of urban distressed areas, in solving the living problems of citizens, in renovation of damaged areas and in renovation of old buildings in urban areas. Therefore, we are to use the system functions (feedback and improvement) to promote the organizations.

### Methodology

Due to the nature of research and considered purposes, this research has descriptive - analytical method by survey by applied views. In this research, after collecting the required data by using existing resources in the field of subject of study, field methods and questionnaire instrument was used to complete the information. Validity of the questionnaire of this research is based on the content validity and has been revised by professors and researchers several times. Reliability of the questionnaire has been tested by Cronbach's alpha (0.701). T-test (one sample test) is used to evaluate the performance of the organization in promoting each of the under study measures. Moderate performance of urban renewal organization in each of the functional areas of the test was 3. Kruskal- Wallis test has been used to determine that which areas have good performance in urban renewal organization and which areas have poor performance.

### Results and Discussion

In one sample T-test,  $H_0$  assumption showed equal stability with the general average number (3) and  $H_1$  assumption indicates the inequality of mediocre quality. Results revealed that urban renewal organization in three fields of modernization of old buildings in urban areas, improvement of the lives of citizens and improvement in the functions of the city was to some extent good. The results have also indicated that it was poor in three fields of urban old texture modernization, solving physical problems of old texture and solving problems of citizens living. According to Kruskal- Wallis test, regional performance of urban renewal organization resulted from the total functions of renewal organization in six constituencies. According to the results, renewal organization has good performance in districts of 15, 16, 9, and 18. It has average performance in the districts of 7, 8, 17, 19 and 10 and also has underperforming performance in districts of 12, 13, 14 and 11.

### Conclusion

In general, two important statements can be concluded from this study. The administrative and planning of Tehran municipality in the field of improvement and repairing of the worn out tissues of the city has been relatively good in the micro scale. This means that this institution was able to put many old residential buildings and inhospitable areas in its target program and make them renewed. This can disapprove the views that state the municipality was not able to solve the problems of the worn out textures.

**Keywords:** performance evaluation, quality improvement, renovation organization, thirteen regions of Tehran Municipality, urban life environment.

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## Evaluation of the impacts of spatial-temporal urban land policies and law on the optimal urban expansion using CA-Markov, Mahabad

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### Extended Abstract

#### Introduction

Urbanization processes are now pervasive, because more than half the world population is living in cities. This proportion will increase to over 72% by 2050. Most of this urban growth will occur in less developed countries. States are controlling over urban land covers and land-use changes, zoning, building regulations, taxation, eminent domain, finance, and conservation rules. However, centralized governmental policies and control in most less developed countries always create ineffective land delivery system and distortions in normal land market behavior. Land policy is a directional and macro political behavior appearing as the attitude, norms and guidelines of the behavior makers. In recent years, the "LUCC" community<sup>1</sup> has produced a large set of operational models that can be used to predict or explore possible land use change trajectories. The models can not only support the exploration of future land use changes under different scenario conditions, Scenario analysis with land use models can also support land use planning and policy. So far, all these models were divided into three classes: empirical and statistical models such as Markov chains and regression models, dynamic models such as Cellular Automata (CA), and Agent-based models and system dynamic model, and integrated model. On the basis of rapid growth of Mahabad in the near future, a systematic approach and accurate planning is the key and plays a vital role in being successful. Given the geological region of Mahabad in the area, the aim of this study is to analyse the changes in the years 1985 to 2015 as well as to predict and simulate the rate of growth of the city by 2021.

#### Methodology

In this study, applied research is performed through a descriptive/educational method. The research also has used satellite imaging (multitemporal sensors of Land Sat TM, and ETM based on the years 1985, 1993, 2003 and OLI82015) to determine and evaluate land changes in the two classes of built areas and not built areas in the city of Mahabad. In order to manufacture the maps, we have used Autocad2015, IDRISI Selva, Envi 4.8, and ArcGIS 10.2.2. For production of land cover maps, we have employed the maximum probability method by

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1. Land Use/Cover Change (LUCC)

supervised classification. This method is considered to be the most accurate method of classification amongst many researchers. Finally, the files of maps of land areas are converted from raster format into GIS vector formats in two classes of built and not built areas.

### Results and Discussion

It is essential to ensure accuracy and to validate the appropriate practical simulation. Maps of land cover classification in this study were evaluated for 2015 by an overall kappa coefficient of 90% higher than the 85% from calculations based on error matrix. This indicates that there is a good agreement between the classification and land cover types on the ground. Thus, land cover maps for a 30-year period in four whole coverage plans in the years 1985, 1993, 2003 and 2015 were studied with the two classes (built land and not built). Model forecast maps show that the process of centralization in land classes is continued during the study. Based on field observations and survey maps prepared by consulting engineers to design housing site selection with a 20 year old plan in the city of Mahabad in 2025, the simulator predictions and plans of the city in the areas of study are approved. According to satellite images and the maps created from sharing the role of the National Land Survey and housing estate, it seems important for organization of public lands to focus on the urban fringe of the city. The following reasons are a support of this idea. A: An overview is focused on satellite images of urban areas will influence a widespread mandatory horizontal expansion. Because of the conditions and regulations, the transfer of municipal lands, the annexation of the lands to expand the city is believed to be appropriate. Referring to the cases of transfer of the Roads and Urban Development Department of Mahabad, assignment in the immediate area in previous years show the intervals assigned to the land a few years to the time required to build. This requires the necessary time for the perennial works in the area to take place. Therefore, verified simulation model reveals that it is a very close estimation to real life situations and conditions. The percentage of acceptance of our study is delayed to the time after the action has taken place and is faced with the relevant facts.

### Conclusion

Research studies indicate that the extent of Mahabad expansion in the geological region in terms of space and time via interpretation of the resulting satellite images show 514 hectares increase in land by 1985. This figure in 2015 increased to an average of 1237 hectares based on actual and projected maps with the help of satellite techniques. Consequently, with the help of the Markov mode, this figure increased to 1657 hectares by 2021. Additionally, the amounts of land belonging to the National Land Survey and housing estate increases from 28 hectares in 1985 to 397 hectares by 2021, according to the estimations. Construction of make-up and organization of physical space phenomena due to socio-economic development of networks and the establishment of settlements as a result of natural processes and social and economic factors will enable vast advancements across the city of Mahabad. In analysis of the physical or spatial construction, a particular emphasis on treatment and physical system components is a fundamental requirement.

Main features include the following physical or spatial parameters in Mahabad:

- Open City is under the influence of natural factors. Expansion of the city has occurred in north-south axis and in the middle part of the east-west axis.
- River of Mahabad flowing is along the east-west axis with a strong edge strongly separating the northern part and southern part.
- One of the main limitations is the relative height of the city compared with the sea level for physical development.
- In addition to the expansion of urban constructions, the use of correct (position and with appropriate slope) methods towards the high lands and maximum neighborhood distances to the main body of the city is plausible.

Markov model analysis of urban development planning helps us provide a quick and reliable direction as well as provide an accepted principle and guideline for future projects. The model

also provides clear decision for space systems and estimates growth with a high level of accuracy and reliability. Following this approach of management and mentality, in combination with such an evolutionary ideas, would be paramount and extremely beneficial for the future.

**Keywords:** land cover, Mahabad, Markov model, urban growth.

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## Analysis of the role of good urban governance and strategic planning (Case study: Birjand City)

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### Extended Abstract

#### Introduction

Today, the population living in urban areas is higher than all periods of human history. The global urban population is expected to grow double by 2025. Population of the world was doubled and will reach more than 5 billion people. More than 90% of this growth will be in the developing countries. However, the cities as engines of social growth and development have incredible potential. Thus, urban management will be faced with challenge in the future and in the twenty one century particularly; a challenge is derived from technological, economical, political and international change. Today, it has been accepted that stable development is realized through democracy goals, equality in providing services and conservation of environment accompanied with formation of urban management and observance of the principles of urbanization science, urban transportation and unequal division of resources and urban income. Global society understood that the main problem of urban management is not the shortage of financial resource or modern technology or skills but it is in the ways by which the authorities manage these factors. The experience of centralized countries showed that one-side and subject view to city creates many problems and the only way to solve the problems is public supervision (account ability) and cooperative act and promotion of efficacy level of urban functions. Principally, urban governance is regarded as an approach of decision-making system and management of urban affairs and in fact it is a process that shapes the interaction between organization and formal institutions on one hand and private organization and institutions of civil society on the other hand.

#### Theoretical bases

Since the late nineteenth century, the “good governance” was initiated as an answer to the civil corruption to support employers and political organizations. National movements with intelligence of governance and civil morals was supported as an antitoxin for urban area living. The simple definition of urban governance is the quality of relationship between the government and its citizens. Researchers and scientific centers considered special particulars for good governance. But the most important of these particulars are those that United Nation has introduced. They are explained below, in detail:

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**Participation.** A process that people taking part, with awareness, voluntarily and cumulatively.

**Effectiveness and Efficiency.** Good governance means that lawgiver organizations always take of people needs and use available sources efficiently.

**Responsibility.** In good governance, responsibility means that to empower people to become auditors and having the rights of expressing their opinions. Thus, responsibility comes against anti-responsibility. This responsibility might show corruption in decisions, while responsibility is an obstacle in front of its appearing.

**Rule of law.** Aim of Rule of Law in urban decisions is to have an efficient law, observe it gustily in decisions.

**Accountability.** It means responsible people, managers and the organization responsible for their desertions.

**Responsiveness.** this criterion has two supplementary points. Urban responsiveness has to accept the citizen needs and also react against it perfectly.

**Orientation consensus.** urban area is an open space for groups and various interests that sometimes quarrel with each other. The aim of Orientation Consensus is to make an agreement about the various interests.

**Equity.** in good governance equity containing: making suitable chances for all people to improve their convenience state, straggle for allocation sources and having partnership of all people even poor ones in decisions.

**Strategic vision.** abstain of being drowned in the daily urban problem needs to have vast insight about the future or having a Strategic Vision about the urban development.

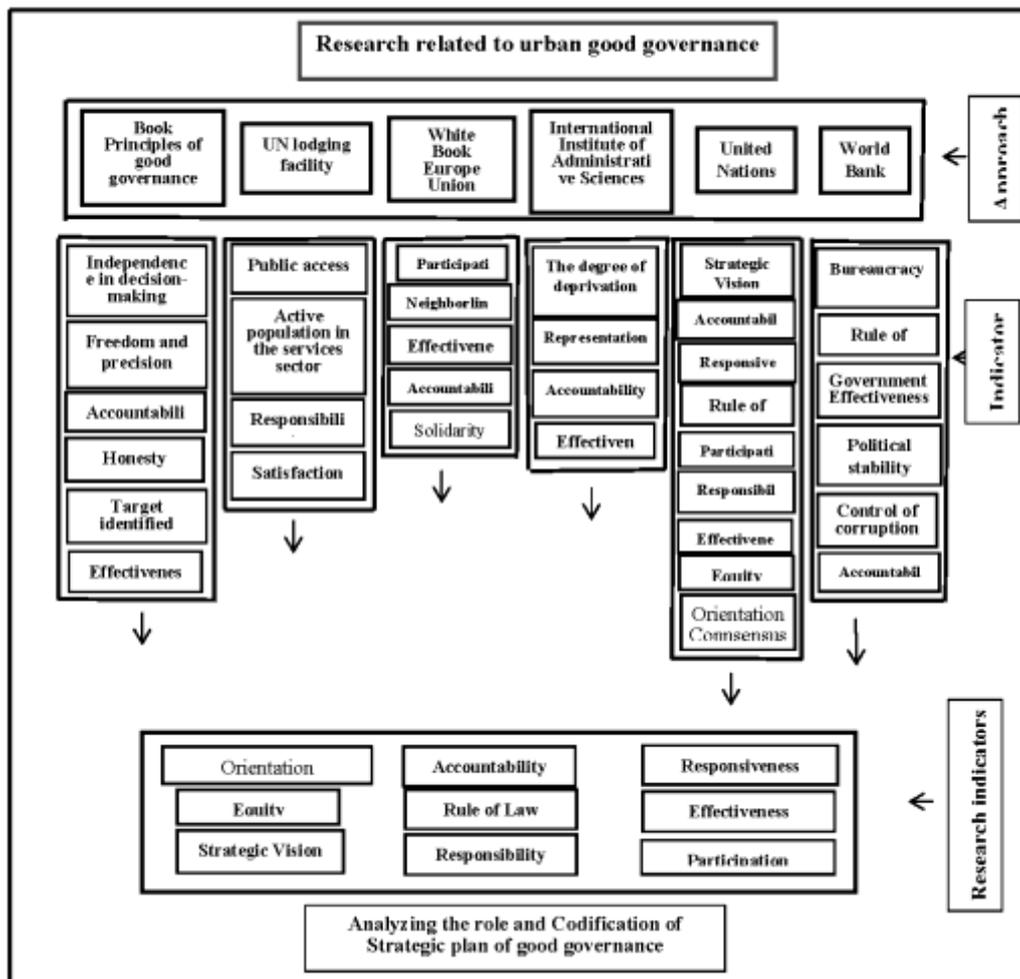


Fig. 1. Conceptual model of this study

### Methodology

The purpose of the present research is to measure the indices of good governance and shows the facilitative role of citizens to achieve this goal. The methodology is descriptive- analytical. The dominant approach on research is systematic. According to system view, it has represented the strengths, weaknesses, opportunities and threats in the SOWT model. In the stage of documentary studies, the internal and external sources have been studied and at field phase, 385 questionnaires have been completed by citizens and 32 questionnaires by experts and specialists of municipality and the city council. The statistical population of this research is all citizens in Birjand city, i.e., 178020 people based on 2010 census. The volume of this model with due attention to the Cochran formula is equal to 385 individuals. The model distribution was sampled with the way of sampling proportional to (pps) volume (table nu. 1). In this way of sampling, the number of sample in each branch has to be proportional to the member of that branch. Hence, the number of sample in all Birjand urban area was distributed proportional to the population of each district. The number of 32 people of urban experts and the city council has also been selected and their opinion about this research has been used.

In this project, we have used SPSS software to analyze the information and statistical variables, Excel software to make the graphs and ArcGIS software to prepare the maps and plans.

Table 1. Method of sample distribution

Number of samples	Percent	Population	Region
169	43.8	78150	1
216	56.2	99870	1
385	100	178020	Birjand

### Results and Discussion

With due attention to the results of civil factors, evaluation table and external factors of the evaluation table, civil factors was equal to 2.06 and it is lower than 2.5. The final point of external factors was equal 1.84 and it is lower than 2.5 that show inappropriate react of urban management to chances and threats. After achieving the matrix from internal and external factors matrix, foreign internal matrix was drawn. The final scores of matrices (IFE) and (EFE) are used to determine the position of governance. According to this rule, Birjand matrix is in defensive position. This means that from one side the city is faced with internal weaknesses and external threats on the other hand, we must reduce weaknesses and avoid threats.

### Conclusion

Internal and external matrix (IE) also shows that Birjand city is located in a defensive location. Birjand city is faced with weaknesses and some major threats. With the results of QSPM, the priorities of defensive strategies (WT) are state that it is essential to:

- Pay special attention to the management of urban area and reduce the dominance approach.
- Elevate the position of the city council to increase citizen's participation.
- Pay special attention to the environmental assumes in long term planning especially the water problem due to prolonged droughts.
- Prevent the urban spiral growth and establish strict rules in order to prevent the conversion of agricultural land to residential areas using abandoned and unused lands in the city.
- Pay attention to the rule of low and hold training courses to raise the awareness state of employees and experts.

Therefore, it can be concluded that Birjand city in the event of good governance in terms of internal factors is weak and did not respond to external factors. Thus, we can judge that Birjand city in the event of good governance do not have good position.

**Keywords:** accountability, Birjand City, good governance, participation, SWOT Model.

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## Citizen-oriented space, new approach to realization of urban sustainable development (Case study: Tehran)

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### Expanded Abstract

#### Introduction

Theoretical basis of citizenship oriented space definition is consisted of evolution of the space concept in the last decade. It creates a common understanding that space is a social construction and also is a community structure. This takes into account the social rights of citizens as a basis for planning. Citizenship oriented space can be created anytime that urban space is organized in a way that it can meet the needs of citizens. This included physical and functional goals and qualitative and psychological needs of citizen in urban life such as social identity, social security and welfare, sustainable employment, psychological comfort, sense of beauty, solidarity and social belonging. The space can create readability and respond to human needs in space and effort to increase the happiness of the people. Precise comprehension of the citizenship oriented space is required to identify its dimensions and components. The latest and most complete approach in this regard is the Citizen Satisfaction Index (CSI). This model is based on four main axes which include urbanity and diversity, nature and recreation, job opportunities, cost-efficiency and overall satisfaction and attachment as two complementary axes. The main objective of this research is to study Tehran space in terms of citizenship. The following questions are Tehran space within the framework of concept, scope and definitions of citizenship oriented space. To respond to this issue, it is required to review theoretical concepts and principles of the citizenship oriented space, identify its dimensions and indicators, and finally analyze Tehran situation.

#### Methodology

Research Methodology in this paper is analytical. The study area is Tehran. This city is involved in the most recent urban projects and planning. What now is appeared in the urban space is reflecting the existing planning system. The status of this space from the rights of citizens and their degree of satisfaction from this space created effective recognition in existing problem. This can be a guide for other cities in recognition of their urban planning in the future. Mixed or cluster sampling was used because of complex and diverse structure in Tehran with different

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levels of prosperity and economic, social and cultural rights. Therefore, based on research that had been divided the city of Tehran according to spatial equity and level of development, we have selected three-zones including district 1 (high development), district 22 (intermediate level of development) and district 18 (the low level of development).

Data collection method is documentary and field survey based on questionnaires. The study population included all citizens in Tehran. Using Cochran formula, the sample size was 384 people. To determine the variables and measure the components of Tehran space, we used CSI model. However, little changes have given in the CSI model due to Tehran city conditions, limitations in assessing some components, and lack of issues in this version. Added indicators are access to public transport, motion flow and movement in the city, and feeling safe in the city. Statistical methods used are cronbach's alpha, chi-square, one sample T-test, and spearman correlation coefficient.

### **Results and Discussion**

Visual image of the city, environmental quality, parks and open spaces, motion flow and movement in the city, feeling safe in the city, the price of rental housing and cost of living are the indicators that demonstrate dissatisfaction of citizens. Wide range of cultural activities, a variety of shopping opportunities, energy and atmosphere of the city, access to utilities, the sense of security in public spaces, how to accept and absorb the cultures and subcultures, natural green space and public access to public transport indicators demonstrate relative satisfaction of citizens and relative desirability. The indicators of general level of wages and employment opportunities show satisfaction of citizen and ideal situation. Finally, main axis of CSI model and overall satisfaction index demonstrate lack of citizen satisfaction in Tehran space.

### **Conclusion**

The concept of space, its dimensions and spatial planning are challenging issues of urban planning. Space is not limited to physical aspects. Citizenship oriented space is multi-faceted concept and covers all economic, social, cultural, environmental aspects of life and the rights of citizens. CSI is one of the most comprehensive models to measure citizenship oriented space. Assessment of this model in Tehran city demonstrated that Tehran space is not in the context of citizenship oriented space and dissatisfaction of citizens is undesirable. Higher satisfaction of citizens in both the general level of wages and employment opportunities are the result of the basic problem of the national planning system. This is resulted from concentration of all economic activities in Tehran, needs of citizens to live in this city, and access to jobs. This problem requires urban planning reform with considering citizenship rights to observe the balance between population, activities and space and balance between national, regional, municipal and local planning. The results showed that the balance between population, space and activities have not been met in Tehran. Unsuitable organization of the national space have had a direct effect on Tehran metropolitan situation and caused dissatisfaction of citizens in other fields. Among other factors affecting the noncompliance in Tehran with the citizenship oriented space indicators are the lack of citizen participation in urban planning process, extrovert urban system, urban management accountability to upper authorities, and political context effectiveness on urban management values. Undoubtedly improvement of this situation in Tehran with the huge population cannot be done in a short time and through massive intervention in the physical space of the city. Basis of creating citizenship oriented space is to target satisfaction of citizens in all planning. This would requires changing urban planning approach to bottom-up planning and citizen participation in the policymaking, decision-making, implementation and monitoring. Hence, it is essential to make coordination in civil law, politics, government, foundations and rules of urban management to consider necessity of social management and crisis.

**Keywords:** Citizen Satisfaction Index (CSI), citizenship oriented space, sustainable development, urban management.

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## Analysis of spatial inequalities based on social, economic and physical indices in medium-sized cities (Case study: Miyandoab City)

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### Expanded Abstract

#### Introduction

In Iran, after land reform and overflowing dollars from the sale of oil to the urban economy, urbanization has started. This urbanization made different urban groups deprived of having access to services and facilities due to lack of facilities and urban infrastructures tailored to their social situation. Miyandoab city was not an exception. In this city, due to vast rural immigration, integration of villages surrounding to the city, inefficient management, and unplanned urban growth, spatial inequalities have been increased. The present research has been conducted in order to investigate spatial inequalities in Miyandoab city. Therefore, the situation of city blocks in Miyandoab is initially studied in order to assess social, economic, and physical facilities using spatial statistics and hot spot analysis. Then, the distribution pattern of spatial inequality is determined using spatial autocorrelation. Accordingly, the questions of research are:

1. Does Miyandoab have spatial inequality according to social, economic, and physical indicators?
2. How is spatial distribution of these inequalities?

#### Methodology

In terms of objectives, this is an applied study with a qualitative-analytic research method in terms of the nature and method of data gathering. Library method has been used to gather data. The source citation of used indicators and quantities was the data and information of the statistical blocks of the general population and housing census of Miyandoab in 2011. The GIS maps have been derived from Planning Deputy of Governorate of Western Azerbaijan. Statistical population of this research is all statistical blocks (1660) of Miyandoab in 2011. After theoretical research, 34 social, economic, and physical indicators were selected for investigation of inequality situation and recognizing spatial pattern of the inequality. In the next stage, based on these indicators, Spatial Statistics tools, Hot Spot Analysis, and Autocorrelation Moran's I in

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ArcGIS software have been used. Indexing has been done in Excel software and the information has been projected in ArcGIS for analysis and mapping.

First, the analysis of Hot Spots on 8 indicators has been done for each social, economic, and physical factor. For each factor, a map entitled Hot Spots analysis on social, economic, and physical indicators has been extracted. At the last stage, these three maps have been overlaid using ArcGIS to create one map. Then, to analyze the spatial inequality of the urban blocks, a combinational map obtained from triple indicators has been prepared using Morris indicators in five levels. Autocorrelation Moran's I has also been used to determine the type of distribution pattern of the inequality.

### Results and Discussion

Findings of the research have been obtained in two stages:

1. Analyzing Hot Spots on the indicators used in the research (social, economic, physical), overlaying layers, and determining the levels of spatial inequality in urban blocks of Miyandoab.
2. Identifying distribution pattern of the inequality in Miyandoab in 2011.

The Hot Spot analysis has been done for each sub-indicator of social factors. Then, the layers have been combined to create the map of Hot Spot analysis of social indicators of Miyandoab in 2011 based on the total of social sub-indicators. The same was done for economic and physical indicators. Then, the obtained three layers have been combined to generate the regarded map of Hot Spot analysis of social, economic, and physical factors. At the end, to analyze the situation and understanding the subject in the city, urban blocks were graded according to having the indicators using maps and Morris development index.

The map of city blocks has been determined in five levels (very deprived, deprived, average, possessed, highly possessed). From total 1660 urban blocks in Miyandoab, 626 blocks are very deprived and 287 blocks are deprived. While 403 blocks have the indicators in average level, 307 blocks are possessed, and the highest value and the lowest numbers of indicators are 37 highly possessed blocks.

The urban blocks are not in an equal situation in terms of possessing, and regarding the quantitative output, the distribution pattern of inequality is cluster type. The deprived and very deprived clusters in the city could be due to integration of rural cores to the city. Average and possessed blocks are also in the center and margins of the city. Meanwhile, highly possessed blocks are the least ones.

### Conclusion

The results show that poor and very poor blocks (913) are the most (55 percent), and they have the least values of the indicators. Considerable placement of them in the edge of city is due to the integration of rural cores to the city. A large number of these blocks are seen in districts of the damaged areas of the city, districts behind hospital, Namaz Boulevard, and Rabari alley. There are 403 blocks with average indicators (24 percent). The possessed blocks are mostly located around left side of Zine Rood River, i.e., shoreline where economic and social bases have separated the population groups (307 blocks, i.e., 19 percent). The highly possessed blocks have the highest value of the indicators, but they are the least in numbers (37 cases) and 2.3 percent could not be a desirable result. The findings have shown that the distribution pattern of spatial inequality is cluster type. The deprived clusters are mostly located in the edges of the city and the possessed clusters are located in the center. This situation indicates class differences and duality in urban spaces and difference in having regarded indicators.

**Keywords:** Miandoab, spatial equity, spatial inequality, spatial statistics, urban blocks.

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## Investigation on the relationship between objective and subjective indices of quality of life and quality of access to urban services (Case study: Distressed area of Zahedan City)

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### Expanded Abstract

#### Introduction

In the past half century, cities due to increase in urbanization, which nowadays is considered as one of the most important aspects of global changes, have provided grounds for expansive urban development and created a lot of changes in land use from local to global scales. These changes were in such a way that following increase in population of the cities and rapid expansion, urban areas are faced with considerable challenges in terms of physical and environmental deterioration, social exclusion, insecurity, unemployment, housing shortage and traffic problems. All these issues reduce quality of life in the cities. Although urbanization is an important index of welfare and social and economic development, its rapid expansion can reduce per capita of urban services and socioeconomic facilities. This in return will manifest itself in the form of life quality reduction in different aspects of urban life. Therefore, nowadays, we emphasize upon solving urban challenges, problems of distribution of urban utilities, social justice, well-being, and consequently citizens quality of life. Consequently, life quality studies can help us identify problematic areas, reasons for public dissatisfaction, citizen priorities in life, the impact of social and population factors on life quality, and monitoring and evaluation of the efficiency of policies and strategies of life quality. Therefore, the aim of the present study is to investigate the effects of urban services and their impacts on life quality in distressed areas of Zahedan City based on cultural-religious, healthcare, service-welfare, and urban facilities and utilities dimensions as the indices of available urban services in these areas.

#### Methodology

The research method is descriptive-analytical. In the present study, to obtain the required data, the field study was employed via developing and distributing questionnaires based on the indices of urban services in each of the studied areas. The sample size included 384 individuals of residents of distressed areas of Zahedan City based on the Cochran formula. To access more complete results, the sample size increased to 390 individuals and questionnaires were

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distributed in terms of the number of population in each 8 areas. Then, using the SPSS software and employing Pearson correlation coefficient, GIS, and fuzzy functions, the data were analyzed.

### Results and Discussion

Findings of the present study indicate that Zahedan City has not been significantly successful in providing urban services for its citizens because most of its distressed areas have average scores lower than the moderate level. In this study, index of access to services was evaluated using 4 major indices (cultural-religious, service-welfare, healthcare and facilities and equipment) which are comprised of 29 sub-indices.

The mean score of resident satisfaction with life quality is based on the indices of access to urban services. The index value was 2.44 which is lower than average. Among these variables, satisfaction with access to exceptional education centers, world tourism and hospitality, libraries, green spaces and secondary schools have scores of 1.08, 1.39, 1.53, 1.95, and 1.99, respectively. Satisfaction with sewage disposal system, surface water collection ducts, and neighborhood cleanliness have scores of 1.72, 1.79 and 1.95, respectively, as the worst status. Satisfaction values with access to bus stations and access to mosques have scores of 3.56 and 3.68, respectively, as the best status. These values are according to the surveys in distressed areas. Therefore, we may state that satisfaction with quality of access in the distressed areas of Zahedan is not very good.

In addition, a comparison between the subjective and objective indices of access to urban services indicates that the final score of subjective indices is calculated based on 17 indices including distance to nursery school, primary school, secondary school, high school and exceptional education centers, tourism and hospitality centers, neighborhood services such as retail shops, desalination stations, post offices, cultural-religious centers (library and mosque), transportation centers such as tax and bus stations, healthcare centers such as hospitals, clinics and sport facilities. The value of the indices is 0.11 and higher than the final score of objective indices (0.07) measured based on 29 indices (satisfaction with access to library, nursery school, primary school, secondary school, high school, exceptional education, mosques, drugstores, healthcare centers, clinics, satisfaction with neighborhood cleanliness, water quality, blackouts, neighborhood lighting, post offices, surface water collection ducts, waste collection, fire stations, storehouses, repair shops, green spaces, sport centers, world tourism and hospitality, retail shops, desalination stations, sewage disposal, access to communication networks, taxi and bus stations). Findings indicate that in some cases, there are differences among what residents perceive from their place of residence and what the results of objective assessment of the environment indicate. One of the reasons for the mean differences between objective and subjective indices in the distressed areas of Zahedan is that most of the urban services are located in Zahedan District 4 which is the central part of the city where most objective services are located. Most distressed areas are located in the northern part of Zahedan. Therefore, citizens are not very well satisfied with the access they have to services in their own neighborhoods and this accounts for the difference between objective and subjective indices in the distressed areas. In addition, using Pearson correlation test, the relationship between cultural-religious, healthcare, service-welfare and facility indices and quality of life was evaluated. Results indicate a significantly positive relationship between all urban service parameters and quality of life in the distressed areas of Zahedan.

### Conclusion

Regarding the fact that distressed areas of Zahedan City are divided into 8 areas, and most of the areas are located at suburbs of the city, they suffer from the lack of services and access to a lot of urban services. Among these 8 areas, Area 4 is considered as the best due to its location at the center of the city in terms of indices of the subjective life quality with mean scores as 3.59 and Area 8 with mean score of 2.06 is the worst area. In terms of objective indices of life quality, Area 4 with mean scores of 4.44 is the best area and Area 6 with mean score of 2.75 is

the worst area. Since the degree of life quality in distressed areas of Zahedan is not indicated to be at favorable levels, therefore, strategies should be devised to inject urban services among these areas to improve life quality of residents in these areas.

**Keywords:** distressed areas, life quality, social justice, urban services, Zahedan City.

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## Spatial analysis of enjoyment level of urban services in Ahvaz metropolitan areas with an emphasis on social justice

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### Expanded Abstract

#### Introduction

One of the main consequences of rapid urbanization growth and physical development in Iran in the recent decades has been disintegrating distribution system underlying inequality in citizen service centers. With the lack of financial, technical and social infrastructures for public use, the city has also fueled the homogeneity and spatial inequalities.

Polarization of urban spatial structure due to management policies and rate environment to attract or repel undesirable qualities has increased facilities and services. Today, the issue of social justice is at the heart of urban studies in all related disciplines. Social justice in cities and eventually in satisfaction of your lifestyle will contribute to political stability and national sovereignty. The social justice is a fair distribution of resources between urban areas and equal access of residents to their facilities. Because they lead to social unrest, lack of equitable distribution of space can lead to complex problems. That is why in the past two decades, we saw a lot of development studies related to social justice. Today, in relation to solving urban problems and difficulties arising from this relationship, the authorities have emphasized on the distribution of public services, social justice and the welfare of citizens. Spatial balance and preparations for Sustainable Urban Development provides distribution services in the city centers. Regional and local causes of irregularity are among the distribution of distant areas of social justice. Therefore, eliminating poverty and reducing inequalities are economic, social and cultural development goals and social justice. Therefore, the problems of metropolises and big cities, especially in the third world, are a reflection of poverty, misery, injustice and unemployment in the cities. It is necessary to analyze problems and structural problems of the cities with the theory of social justice to solve problems at the national level.

As a highly populated city, Ahvaz in Khuzestan province has experienced unbridled growth in the last years due to natural growth, immigration, expansion of services, and changes in social, economic and demographic trends. The population of this city has increased from 120,089 people in 1956 to 1,064,177 people in 2010. The population of Ahvaz has increased more than 8 times. This change occurred just in 55 years and has come covered as areas from 2,500 hectares to 22,000 hectares. During this period, the urban lands covered about 78 percent of the previous urban area. Therefore, the city has faced with the problem of injustice in the

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distribution of utilities in recent decades due to population variability. Paying attention to the situation in Ahvaz metropolitan urban areas can change municipal services from the perspective of spatial equity index and identify the weaknesses and strengths of urban planning and policy in the future development.

### Methodology

This study is an applied research with a combination of analytical methods. In this study, we have used two methods to collect data by library and field survey. The civil service has been used to determine the parameters of the Delphi survey. Hence, a questionnaire has been prepared and distributed among 15 experts in urban issues. The weighted data have been used to model hierarchical fuzzy and data from electronic techniques. To measure social justice we have used enjoyment of civil service per capita. The measures are including business - services, education and research training, cultural - artistic, religious, health - health, sports, office, parks and green spaces, urban facilities, municipal facilities, housing, roads, transportation and industrial.

### Results and Discussion

The main objective of this study is spatial analysis metropolitan areas of Ahvaz. The data is also derived from electronic engineering (ELECTRE). The final results obtained from electric model show that the region is quite high in categories 3 and 4, in the category of Region 2, Region 1, 6, 7 and 8. The results of this study indicated spatial justice in the metropolitan areas of Ahvaz.

We have also argued about the identification of the factors affecting the spatial inequality in Ahvaz.

Influence Power viewpoint focuses on national and regional sovereignty. The influence of the less developed areas of the national and regional scale will continue in less developed areas.

Given the results of these authorities and relevant institutions, Ahvaz metropolis can offer strategies such as more attention to underserved areas of Ahvaz and prioritizing the areas of social development, cost allocation to regions, and allocation of additional costs in deprived areas.

**Keywords:** electrical engineering, Metropolis Ahvaz, social inequality, urban utilities.

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