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Analysis of spatial disparities between regions in Tehran and providing balanced spatial development strategies

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Abstract. Spatial inequalities and imbalances occur when the spatial structure of the various parts of the region are clear and has obvious differences. These differences need to develop different solutions for different areas in order to fulfill the lofty goal of balancing the space in the region. The purpose of this study was to analyze the spatial disparities in Tehran in order to determine strategies for creating a balanced spatial development in the cities of Tehran province. Study method is cross-sectional and the approach is functional. The statistical population includes 16 cities of Tehran province. In this study, area of the city and region of the province is considered. The used indexes includes 33 indicators of health - remedy, transport and communications, infrastructure development, social, economic, cultural - welfare, educational - population and natural. We use taxonomy numerical model to analyze the data and the standard model of z and one-sample T Test and LSD to investigate the relationship between the variables of multivariate regression coefficients. According to the results of numerical taxonomy, due to selected indicators, city of Damavand is in the first place, second and third places were Shemiranat city and Firoozkooh city. Tehran city is located in the eighth grade. The results of the regression analysis show lack of balance among the cities of Tehran, because always, the cities of Tehran province are in different classes in terms of development indices. Based on T-test, we can say that, in terms of used indexes, many of the cities of Tehran province are different from each other in terms of development. The use of LSD shows different ranks of different cities and indices of different parts separately. Finally, for optimal development of cities in Tehran Province, some strategies are presented.

Keywords: Spatial inequality, development indices, numerical taxonomy model, balanced spatial development strategies, Tehran region

1. INTRODUCTION

Scientific research begins with the emergence of a problem or an unknown scholar in mind. The main purpose of scientific research is ascertaining the unknown problems and finding answers for them. Scientific research has a primary goal and an ultimate goal. The primary objective of the researcher is to clarify certain issues that face with it, but the ultimate goal is universal access to information and the general propositions that have universal character. (Hafez Nia, 17: 2013)

Development of a country, such as the process of development in different countries, according to heterogeneous spatial distribution of resources and the economic, social and environmental factors in areas have different orders. In other words, due to the potential of regional development in various industrial, agriculture, services sectors, they are not congruent with each other. Equality means that all people should have equal opportunities. Inequality means difference in opportunities for individuals and groups compared with the average of population.

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The role of national and regional policies in the spatial distribution of the elements is important. Lack of balance of development of the various regions creates gaps and inequalities and is considered as an obstacle versus national development. (Hajipour, 2005, p. 6 and Ahmadi Pour et al, 2007: p. 22)

These concepts can be studied from different perspectives in which in this study, they are mostly examined from the perspective of spatial inequality.

2. RESEARCH EXPLANATION

Spatial imbalance is a planning problem that means obvious differences between the social, economic and physical characteristics of various parts in the region. Differences that require different approaches to planning in these areas are aimed to achieve the goal of establishing a regional balance in the atmosphere.

Asymmetry and imbalance in each geographical area are due to two factors, one is inside and one is outside the area. (Momeni, 1998, p. 36)

Inside factors such as the natural and geographical conditions of the region, water, soil, geomorphology, climate, if they have appropriate conditions, lead to tangible prominence (Sarvar, 2005, p. 7).

Outside factors have a significant impact on progress or lack of progress. The factors are associated with the development of policies and selected strategies for development. (Shokouhi, 1986, p. 66)

Planners and experts show the need for balanced development of the various reasons:

First, social justice in order to ensure fair and appropriate conditions in different areas for facility, second, political considerations as a factor for decline of political unrests and third, economic and social considerations that prevent the migration and lead concentration. Providing welfare, removing poverty and alleviation, reduction of exclusion, social justice and equity are considered in regional development programs and the government is obligated to reduce regional disparities through providing regional and national preparation plans. Unequal distribution of resources, the inevitable result of intense concentrations of population, activities and services in some areas, low weight and uneven population and some activities and services in other regions lead promoting the flow of population and thus authorities are faced with many problems. This phenomenon leads to inactivity towns and villages in the economic life flow of areas and more and more people moving to cities and non-significant inhibition of the growth in large cities.

It seems that there is no plan due to good distribution of facilities and social services and it doesn’t lead to overcome or avoid inequalities and imbalances.

In this context, care to regional disparities in terms of indicators are the most important planning tools through which the planners are able to evaluate the results of the program in the context of geographic regions.

If this topic is interest to planners in logical and scientific mood, we can show strengths and weaknesses in different parts clearly and determine planning regions in terms of the planning hierarchy and homogeneous units. (Zali, p2, 2000)

In this study, Tehran province is considered as region and the cities of the provinces as states. Tehran province is important due to the city of Tehran as the capital of the country and has the advantages compared to other regions (provinces) and this factor has been operating inside the province, so that Tehran city is highlighted as the first city in the hierarchy system and has significant differences with cities in other provinces and most facilities have attracted there and the rest as small towns in the region do not have sufficient ability to provide services to its residents and this leads to the collapse of social justice in the region.

This research attempts to do the analysis of spatial disparities between different areas of Tehran region through evaluating selected indices in the social, economic, and general infrastructures and how to distribute of these facilities in the area, officials priorities in order to reduce spatial disparities and achieve a balanced spatial development in the region.

3. OBJECTIVES AND THE NEED AND IMPORTANCE OF THE TOPIC

1. The analysis of spatial disparities in Tehran province.

2. Determining the appropriate indicators to measure spatial inequalities in the study area (Tehran province)

3. Determining strategies to create a balanced spatial development in the study area (Tehran province)

Spatial inequalities and imbalances occur when the spatial structure of the various parts of the region are clear and has obvious differences. These differences need to develop different solutions for different areas in order to fulfill the lofty goal of balancing the space in the region. Spatial imbalances between different parts of the region in various areas of social, economic and cultural aspects cause the collapse of the spatial order of citizens on the one hand and uncontrolled and rapid growth in some first cities on the other hand. Migration from rural areas and small towns to such cities causes deprivation, isolation and marginalization of the villages and towns in the province. The example is the unbalanced spatial structure of Tehran province. The polarization of the population in the area of Tehran, concentration of variety of economic and service activities in Tehran cause disruption of logical hierarchy and distribution of facilities in the region.

In Iran, Non-normative policies in the past place for the industrial and service locating in growth poles hub and the dominant trend of centralization in a single city and the metropolitan area is the main causes of regional disparities. (Dalir, 2001; 90)

Identification and analysis of the situation in the areas in environmental, economic and social aspects is the first step in the process of regional development planning. By this, bottlenecks and constraints become specified and we can progress to solve them. (Rezvani, 2002, p. 459)

The need for above research is that by studying existing situations in districts of Tehran and findings inequalities among backward regions, leads planners and designers and policy makers in order to achieve a balanced spatial development that in this regard, the identification of the areas (cities) in terms of development and success indicators compared with each other, can be the first step in planning to address the inequities and imbalances of current spaces.

The results of this research could be used by producers of regional initiatives in the country and the officials in offices such as Governor, General, Ministry of Urban Development and Housing Foundation of province and municipalities (cities of) and it is a guide to balance of regions.

Research hypothesis:

1. It seems that there is no spatial balance among the city of Tehran province.

2. It seems that the level of development of cities in Tehran province is varied together.

3. It seems that the inhomogeneous distribution of resources and economic and social and cultural and climate conditions of the region (Tehran) has different classes.

4. THEORETICAL

One of the problems in the analysis of regional issues and planning and in the spatial dimensions is correct interpretation of concepts in this field of knowledge, so that the necessary consensus on many concepts that are frequently used in this field, do not exist.

This is why we try to describe basic concepts and theoretical research in the fields of spatial inequalities briefly.

The concept of space:

In terms of geography, space is somewhere that phenomena have interacts with each other and human activities are formed there. There are different spaces due to different activities. Fransua Peru, famous French economist, who first reagent of space in the area of economic and social development discussions in the 1950s, believes that we have different spaces as abstractive relations defining a subject (such as the economic, organizational, geographical spaces and so on. In fact, the space is set of framework and content. When a character or an extension is attributed to the space, that body or content specifies the identity and area of space. For example, urban space is based on physical body or borders of city, or rural spaces that are in rural areas or national areas that span national borders.

A series of human and activities construct natural or artificial environment. In other words, "space" is not limited to the physical dimensions and has both physical and non-physical or static and dynamic spaces and the dimension of time. (Sarafi, 1985, p. 4)

Geographical space consists of habitable space, where the natural conditions allow organization of social life. This objective space affects composition and relations. These relationships are defined in a framework that can be deployed on the earth planet. (Dolfous, 1981, p9-8)

Space justice:

The spatial justice means equitable distribution of basic needs, resources, facilities and services among different regions, so that any area has not space superiority than the other areas.

Based on the above definitions, "justice" in this study means observing equal rights for all citizens in the enjoyment of the amenities, facilities and also the social justice means distributive justice than jobs, income, housing and public spaces in the city.

Literature:

About analysis of spatial inequality and level measurement, several studies have been conducted in which they can be mentioned as following:

Studies of inequality in Iran:

- Qadiri Masoum and Habib (2004) using numerical taxonomy, determined urban development degree of 16 city points and 9 cities in Golestan province in terms of the various indicators of housing and buildings, urban and cultural infrastructure , human resources and training separately and in combination, and provided combination and region strategies to achieve development.

- Molayi (2007) examined the degree of development in the service sector and social welfare of the country during the years 1994 and 2004 using factor analysis and numerical taxonomy. The results suggest that as conducting study, development and social welfare services in the provinces of the country increased, but its distribution was more skewed.

- Sharifi and Khaledi (2009) investigated development level and the imbalance in rural areas in Kurdistan province in terms of 45 Development for the years 1996 and 2006. Thus, at the beginning, the study indices using factor analysis are summarized to a few of the factors and then using the method of numerical taxonomy, degree of development in rural have been determined.

- Office of State Planning and Budget Organization conducted a study entitled as "A framework for the analysis and integration of regional indices". We use factor analysis for combination of indices and use of indicators by benchmark of 18 indices for rating the provinces. In this study, Tehran province has 160 points at the head and the provinces of Hamadan, Lorestan, Ilam, Hormozgan, Bushehr, Kurdistan, Kohgiluyeh and Boyer Ahmad and Sistan and Baluchistan are in the last places.

Studies of inequality in the world:

- Emes and Hahn (2001) evaluated progress condition in 128 developed countries in the world in terms of 10 development indicators from 1975 to 1999 using human index development. The authors have followed the procedure describing the weaknesses of the Human Development Index. So that, the main shortcoming of the human development index is changing in the use of GDP.

- Joae (2001) classified different regions of Belgium in terms of 33 indicators in the economic, educational, cultural sections etc. using multivariate statistical techniques such as factor analysis and cluster analysis.

- Molnar (2007) determined development surface of settlements in Sout-Transdanubia in terms of 17 socio-economic and infrastructural indicators for the years 2000 to 2004 using a combination of indicators.

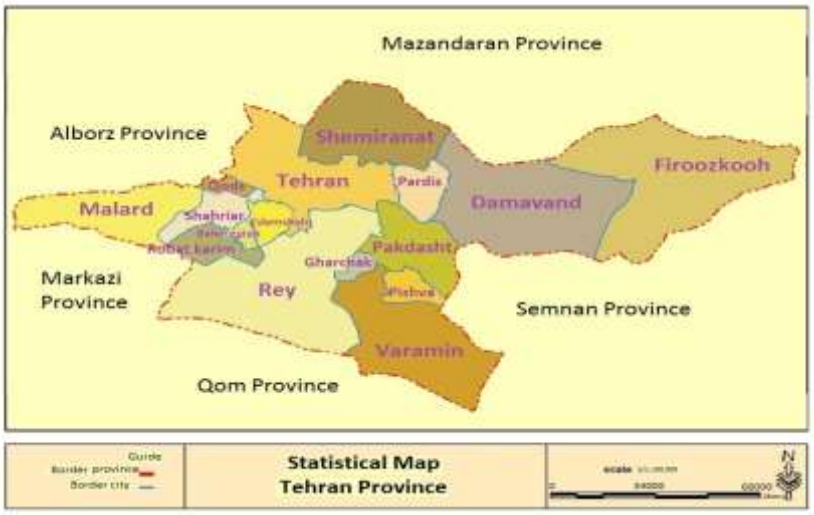
- Economic studies of International Institute in UN show the development of spatial inequality and increasing inequality in many countries during recent years. In Africa, for example, 7 of the 12 countries surveyed in 2003, the percentage of people living below the absolute poverty line is 50 percent more than rural areas than urban areas. In Africa, urbanization at the end of 1980 is occurred with no growth.

Hence, the lack of economic and social development leads too much cost of space-intensive inequality such as crime, poor housing, inadequate health care and inadequate allocation of resources in areas.

Brief introduction of the study area:

Tehran province is located with a population of 12183391 people, according to the last census (2011) and an area of 14 thousand square kilometers between 34 degrees and 53 minutes to 36 degrees 7 minutes in north latitude and 50 ° and 20 minute to 53 degrees and 9 minutes in the east. This province is near the Mazandaran in the north, province of Qom in the southeast, Markazi province in the southwest, Alborz Province in the West and Semnan in the East. Tehran is located between Alborz wrinkle ridge and the central and the western edge of the desert, and thus the climate of the province is mainly affected by the altitude. Tehran Province is divided into some citied and the citied are divided to several districts as administrative divisions. According to the latest divisions in Iran, Tehran has 16 cities, 44 towns, 71 villages and 1026 rural places. In 2012, the cities of Ray and Firoozkooh are the largest cities of the province that each area has more than 2 million square kilometers. Also, the cities of Baharestan and Qods are the smallest cities in the province. The area of Tehran as the capital city is 1301 square kilometers that in terms of size is ranked fifth among the 16 province cities.

Map of the province of Tehran is given below based on its cities.



Map 1. Map of Tehran province.

Research method methodology:

In this study, method is cross-sectional as nature and from the perspective of approach, the research is functional.

Data collection method is library and documental and extracted by reference to agencies and departments, and statistical data yearbooks and cyberspace.

Statistical population includes 16 cities that by study and collecting the data, the analysis has been done.

Used indices include 33 indicators that are sorted into 7 main indicators: indicators of health, transport and communications, infrastructure development, social, economic, cultural - welfare, education – population and natural.

To analyze the data, we use descriptive and inferential statistics, so that we describe the indicators. Then, on the basis of the taxonomy numerical model and the standard model of z, we rank the cities in terms of development action and finally, for investigating the relationship between variables, we use multivariate regression coefficients.

Indicators used in the study:

Health indicators including:

The ratio of health centers per 10,000 populations in the city

The number of labs per 10,000 populations in the city

The number of rural health houses per 10,000 inhabitants in the city

The number of specialist (University of Medical Sciences and Health Services) per 10,000 inhabitants in the city

Transportation and communications indicators including:

Ratio of the rural roads length for each city

The length ratio of the roads covered by the Ministry of Urban per 100 square kilometers of the city area

The ratio of post offices in rural and urban areas per 10,000 inhabitants in the city

The ratio of communication service offices per 10,000 inhabitants in the city

Landline phone number for any city population

The number of public telephones per 1,000 people in the city

Infrastructure development Indices including:

Ratio of water branches for the population of each city

Total length ratio of sewage per 10 square kilometers in the city

The ratio of the number of power subscribers per population of each city

Percent of households having gas split in the city

Fire Station Number per 100,000 populations in the city

Social indicator:

Post- family photos

Economic indicators including:

The number of types of transactions recorded in the Real Estate Registration office in city population

Adverse economic guardianship

Proportion of the active population to 10 years and older population (labor force participation rate)

The proportion of the employed people to economically active population (employment rate)

Ratio of employees of the educational sector (education) per 100 inhabitants in the city

Number of fish workshops (dual cold and hot water) per 100,000 populations in the city

Issued building permits per 1,000 inhabitants in the city

The ratio of housing units per 100 households in the city

Cultural – welfare factors such as:

The number of theaters in the city of Tehran province per 100,000 populations in the city

The number of libraries (public and libraries of Center for Intellectual Development of Children and Adolescents) in the cities of Tehran province per 10,000 populations in the city

Utilization rate of sports facilities per 1,000 population in the city

Educational – natural – population indicators including:

The ratio of girl to boy students in the cities of Tehran province

The proportion of teaching staff (office) per 100 students in each city

Faculty ratio per 100 in secondary school students in the city

The number of classes per 100 for elementary school students

The number of classes per 100 for secondary school students

The ratio of forests area to the area of city

5. THE RESULTS

Classifying levels for the cities of Tehran based on taxonomy numerical model:

A method of grading the areas in terms of region development is taxonomy analysis. A special type of the method is taxonomy numerical analysis. This method was proposed for the first time by Adanson in 1763 AD. This method enables to divide a special set into more or less homogeneous subsets, a scale which is used to characterize the degree of development planning. (Hekmatnia et al. 2006:220)

First step: Calculating the mean and standard deviation of research indices

In the first stage, we consider 16 cities of Tehran province with 33 development indicators, and then we calculate the mean and standard deviation of each column.

Second step: standardization of transgender data

The standardization of transgender data (Standard Z)

Third step: calculating the compound distances between the regions and determining the shortest distances

With standard matrix Z, we can find difference (gap) in any area than the other areas of each indicator. Then, using the following formula, we can obtain combined distances between regions in terms of a set of indicators:

$$D_{ab} = \sqrt{\Sigma(Z_{aj} - Z_{bj})^2}$$

A, b represents two areas evaluated in terms of their combined distance, such that:

$$D_{aa} = 0 \qquad D_{bb} = 0 \qquad D_{ab} = D_{ba}$$

Fourth Step: Finding the homogeneous regions

$$\bar{D} = \frac{\Sigma d_i}{n} = 5/93606 \qquad S_j = \sqrt{\frac{\Sigma^n_{i=1}(X_{ij} - \bar{X}_{ij})^2}{n}} = 1/24868$$

D+ = D + 2Sd = 8/43342 D- = D – 2Sd = 3/43870

All connectors that their length is greater than the upper limit (high critical interval) can be excluded. Also, all of the connectors that are smaller than the lower limiting (lower critical interval) can be excluded, because the length of the interval is less than the difference between the two regions. In other words, in such a case, they are similar enough that it cannot be considered as two different regions.

Finally, the distances between the D + and D- are homogeneous and placed in a group and two areas where the combined distance is greater than D + and less than D- indicates that there is no similarity in terms of development. As a result, we have 3 different categories:

Class 1: greater than D +

Class 2: The smaller than D-

Class 3: between D + and D-

Since this method is raised as a means to classify the degree of development between different nations in macro-scale and as localized differences cannot be clear in a small town and a large scale, so at this stage of the taxonomy, the cities of Tehran city is homogeneous. Hence from the 16 cities in Tehran, according to data standardization, all are known as homogeneous city.

Fifth Step: The classification of homogeneous regions and determining the development paradigm

Since all the areas in the previous step are covered in a homogeneous group, therefore, we form the data related to first matrix X for a homogeneous group, and again after we calculate the standard matrix, in the standard matrix for each column we find the greatest amount and called it the ideal value. Each distance of a region is an ideal area for each of the indicators show us a part of the form that the compound index of intervals creates a form that represents a region of the compound distance of region in the ideal distance and we show it as Cio that is gap of region i to region o and is calculated from the following formula:

Cio is called development paradigm and as it is small, it is indicating the development of the region, it means the distance between the i region is less with ideal region and as Cio is high, the lack of development of the region I is observed.

Sixth step: Calculating the degree of regions development

After defining the paradigm of development for each of the areas, the degree of development of the following formula is obtained:

$$F_i = \frac{C_{io}}{C_o} \qquad \bar{C}_{io} = \frac{\sum_{i=1}^{n} C_{io}}{n}$$

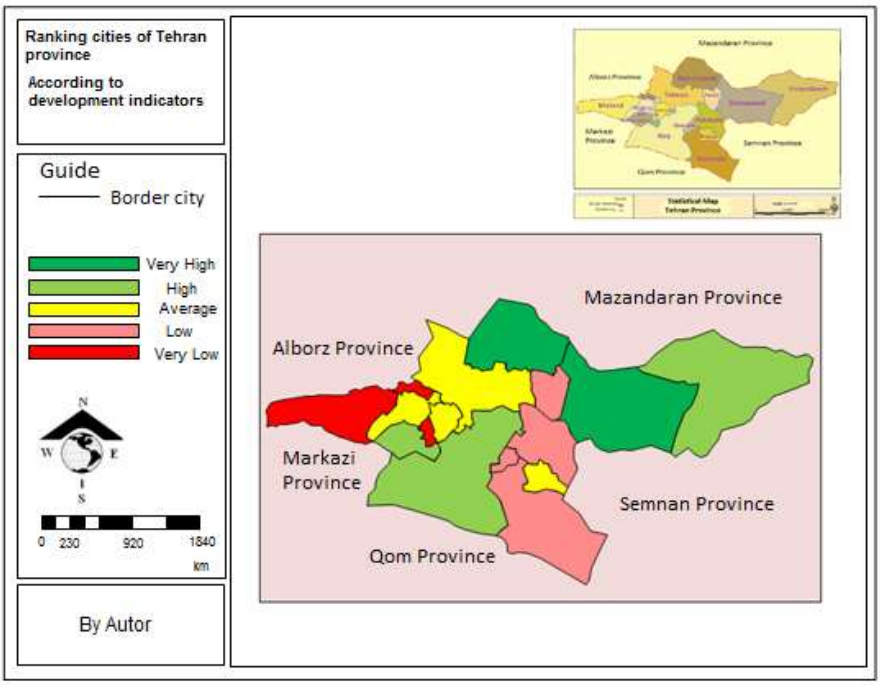
$$C_0 = \bar{C}_{i0} + 2S_{io} \qquad S_{io} = \sqrt{\frac{\sum_{i=1}^{n} (C_{io} - \bar{C}_{i0})^2}{N}}$$

Fi is a value between zero and one and as closer to zero indicates more development and as closer to one, is sign as the lack of development.

According to the results of numerical taxonomy, on selected indicators, city of Damavand is in the first place, city of Shemiranat is in second place and Firoozkooh is in third place. Tehran city is located in the eighth grade (Table 1).

Table 1. Degree of regions development based on the selection criteria.

Level of development	Degree of development	Development paradigm	City	Row
Very high	0/53766	8/52495	Damavand	1
	0/59904	9/49813	Shemiranat	2
high	0/62018	9/83343	Firoozkooh	3
	0/66551	10/55208	Robat Karim	4
	0/69277	10/98437	Rey	5
average	0/72702	11/52733	Pishva	6
	0/74836	11/86571	Shahriar	7
	0/75876	12/03067	Tehran	8
	0/77643	12/31087	Islam Shahr	9
Low	0/79050	12/53397	Pakdasht	10
	0/80616	12/78226	Pardis	11
	0/83958	13/31209	Gharchak	12
	0/88282	13/99764	Varamin	13
Very low	0/90282	14/31584	Qods	14
	0/92237	14/62474	Baharestan	15
	0/96251	15/26124	Mallard	16



Map 2. Ranking of cities in Tehran province in terms of development indicators

In regard to the placement of some of the city's position as the city of Tehran in the eighth position, it is necessary to mention that the city is located in this situation as the selection indicators. The city is in low level in some development indicators such as rural health houses, pastures, rural roads length. Also due to spatial balance programs in the city of Tehran, the construction is largely avoided.

So in this index, due to the lack of alignment in the development process according to the compactness and density, this city is ranked lower that today, is located in the development and construction process. Thus, the number of branches of water, electricity and gas in such cities that greatly placed in physical expand, is on the rise.

Research hypotheses test:

In this section, we analyze the factors affecting the development of the citied in Tehran using advanced statistical techniques such as multivariate analysis of variance and multiple regression analysis and based on them, the relationships between the components and variables will be examined to test the hypotheses.

1- It seems that there is no spatial inequality among the cities of Tehran province.

According to the presented hypothesis, achieving spatial balance depends on proper interaction with each other and the relation between the cities of Tehran province, but what is more important to achieve a balance in the spatial structure of the city, is the dependence of the parameters of the interaction and integration of the cities with each other; because an appropriate spatial structure is not associated with the interaction, or in situations with structural integrity, there is appropriate spatial interaction between the cities. So we accept this and we can say that as the dependence of spatial interaction and integration of cities increases, the spatial structure of the cities is closer to equilibrium.

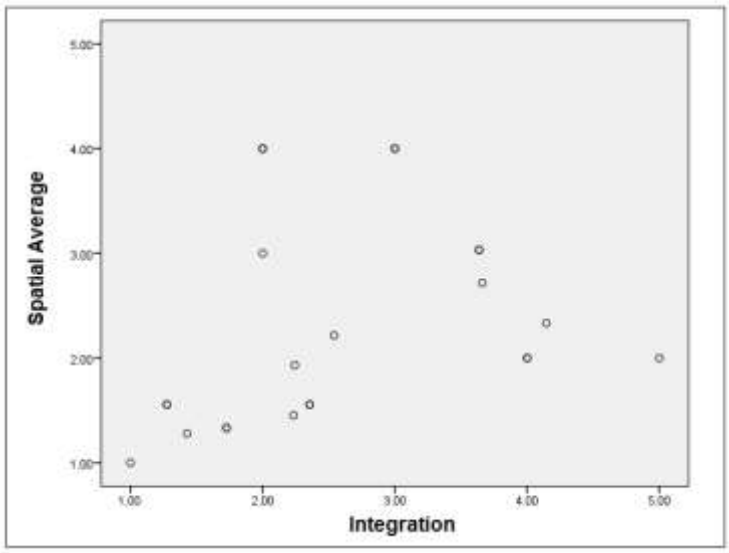


Figure 1. The relationship between spatial interaction and integration of the 16 cities in Tehran.

The results of the regression analysis shows that there is not a spatial balance in the cities of Tehran province, because on one hand, the cities of Tehran Province are at a lower level than the other cities in terms of their development indices and on the other hand, due to the lack of services and facilities in most of the cites, these cities are always dependent to Tehran city has for development. By utilizing Spss computer software and combined multiple regression model, factors and indicators affecting developing the cities of Tehran, are determined. The obtained results suggest that all economic, cultural, and transportation and communication infrastructure sectors have a significant relationship with the city of Tehran's development at confidence level of 99%. These data in the model determined 85/4 of development changes in the city of Tehran and low residual variances by unknown factors not included in this study, can be explained and predicted.

Table 2. Coefficient of multiple regression analysis of development in the cities of Tehran province.

Multiple correlation coefficient	Coefficient	Corrected Coefficient	Standard error
0/867	0/871	0/853	0/0124

The results of variance analysis confirms correlation between the components of the development in the cities of Tehran and the dependence of the cities into a major growth pole e.g. the city of Tehran, this means that although most of the cities of Tehran province relatively good condition in terms of spatial balance in their development structures, but their development process has integration and connection with the grow pole. This relationship is expressed with a confidence level of 99% in the following table.

Table 3. Variance analysis of multiple regressions of city development and internal and external communications with each other.

Significance level	The quantity F	Mean squares	Degree of freedom	The sum of squares	Source of changes
0/000	867	0/851	8	0/851	Effect of regression
		0/314	43	0/002	The remaining
		-	51	0/851	Total

Accordingly, we can say about the relationship and dependence of the cities in Tehran province to Tehran city as a major growth pole, in level of region and country, always due to a strain of these relationships and greater influence over the cities of Tehran province on other cities, most of the cities don't achieve desired spatial equilibrium structure for their development, thus, the considered hypothesis is confirmed.

2. It seems that the level of development of the cities in Tehran province are different.

To test the hypothesis, independent T-test was used. The computational results in Table 4 show mean, standard deviation and the mean differences test in the demographic, social, economic, health, cultural, infrastructural sections. As can be seen, there is a significant difference between the cities of Tehran province in terms of the development indices. For the most parts and indicators, this difference was significant.

This significance can be confirmed on the basis of studies related to research indicators and statistics and indicators on the basis of documents.

Table 4. Mean differences test between the developments of the cities in Tehran province.

Significance level	T-test	Standard deviation	Average	Abundance	Variables
0/008	2/412	0/12	0/25	4	Population
0/004	3/0317	0/09	0/31	6	Social
0/015	2/457	0/23	0/48	7	Economic
0/0056	2/158	0/09	0/26	5	Sanitary
0/041	2/984	0/21	0/17	5	Infrastructure and facilities
0/038	2/148	0/08	0/13	6	Communications and Transportation

According to T-test, we can say that based on the studied indices of the cities in Tehran province, they are different from each other in terms of development. Therefore, the considered hypothesis has been confirmed.

3. It seems that heterogeneous distribution of resources and economic, social, cultural and geographic conditions in region (Tehran province) has different classes.

Utilizing Spss computer software and using multivariate variance analysis (the factor plan), the disparity between Tehran cities and inequalities between different parts of the city are examined and analyzed. Table (5) shows that disparity between the cities of Tehran province was approved with a confidence level of 99%, it means among the different cities in the province, there are various ranks as indicators

and this difference makes that distribution of resources and economic and social conditions has heterogeneity and this causes the distribution of different sources in different classes based on the capabilities and other components which are not mentioned in the study and is often influenced by economic conditions, political and social conditions.

Table 5. Results of the analysis variance tests (the factor plan) in the cities of Tehran Province.

Sig	F statistics	Mean squares	Degree of freedom	The sum of squares	Variance division
0/000	3/461	0/496	18	5/315	Modified model
0/032	195/452	16/289	1	16/289	From origin
0/004	4/168	0/3147	16	1/542	The cities
0/027	9/486	0/843	32	3/683	Sections (indicators)
-	-	0/048	37	3/217	Error
-	-	-	106	15/411	Total

LSD model shows a different city rating criteria for different parts separately. Figure (2) shows the disparity between the cities in Tehran province in different parts and this leads to unequal distribution of resources placed in different classes.

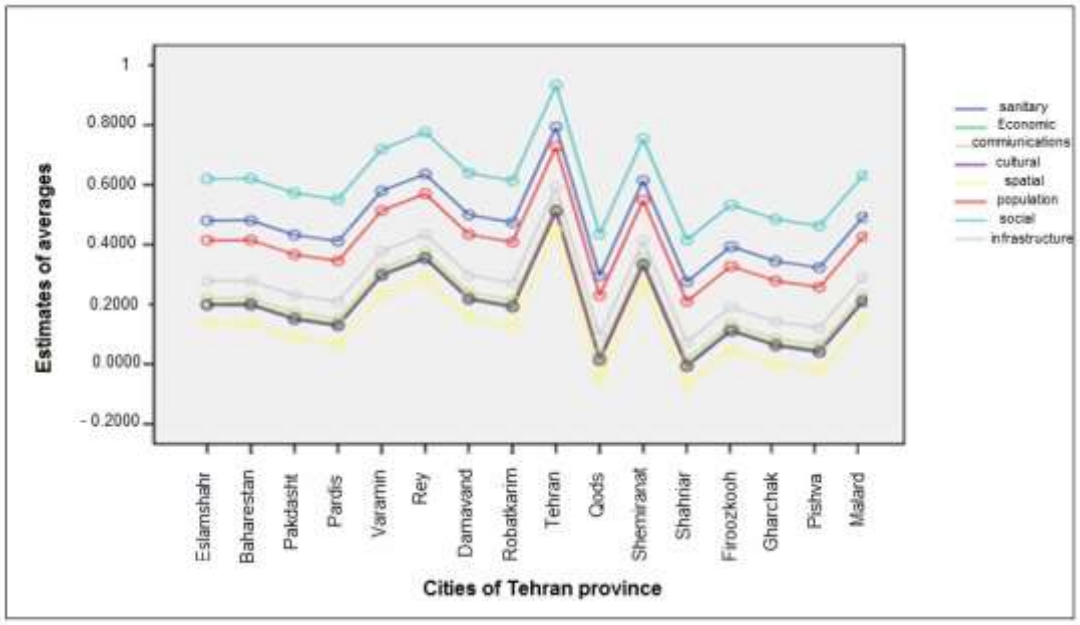


Figure 2. Inequality in different index among the cities in Tehran province.

Based on the findings, the considered hypothesis is confirmed.

6. PROVIDING GUIDELINES AND RECOMMENDATIONS

According to research findings for the development of the cities in Tehran province, the following strategies will be presented:

- Fair distribution of services and facilities in the cities of Tehran province based on the needs and potential and capacity of each city.

- The usage of capacity in any city in order to achieve a stable income in various sectors of the economy to achieve sustainable and a strong urban economy.

- Providing health facilities and services in the cities of Tehran in order to reduce the volume of traffic on a major growth pole of the Tehran in which most of these services are widespread in the city.

- Improving communication infrastructure in the cities, like Damavand, Shemiranat, Robat Karim to realize their development

- Promoting health and social welfare in the denied cities.

- Establishing social and economic justice in different parts of the city of Tehran.

- Creating a suitable environment for increased employment, income and reduced migration of residents to the more developed cities as Tehran.

- Development of income resources and capacities in the field of tourism in the city having this potential income like Damavand and Shemiranat.

- Establishing development of livestock and agricultural product processing industry in the cities having the potential.

- Increasing employment by organizing business and industry in most of the cities in province.

- Development of industrial packaging and storage centers of agricultural products such as warehouses and cold storage facilities in the city that can have extensive agriculture and livestock.

- Network-economic activities, particularly by encouraging them to set up supply and distribution cooperatives in common between them and

Cooperative development in the city of Tehran.

- Encouraging savings and investment guidance to entrepreneurs and small rural areas of the city where the activity is wider.

- Develop a comprehensive database of the city

- Communicate with the University City centers and out of the city and building networks in various fields.

- Planning to meet with potential investors and potential investor's city.

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