Analytical Study on Necessity of Decentralization of Higher Education

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ABSTRACT: Large cities and metropolitan areas in developing countries are growing rapidly. These areas grew by attracting all facilities, services and capital of the country. Tehran has been the major city and center for decision and policy making in various administrative, political, economic and socialaspects. This political focus has brought economic, social, educational focus that attracted a vast majority of students of Iran. Based on measures by TOPSIS technic, Tehran province has ranked 19th in terms of development Indicators; therefore, its status is not favorable. There are total of 91 universities or educational institute in Tehran province 75 of which are located in the city of Tehran. There are 527 thousand students currently studying in these institutions which itself indicates the focus on capital city, especially in the field of education. National programs should take decentralization policies from growth poles. Decentralization of higher education as an integrated development policy for Tehran province and the country can bring many fruitful results. Based on recent policy on decentralization, cities of FiroozKooh and Damavand are proposed for attracting students of Azad universities and Varamin is proposed for attracting Payam-e- Noor students of the province and Hashtgerd is proposed for accepting part of activities of governmental universities for undergraduate studies as appropriate locations for identical spatial distribution.

Keywords: Higher Education Center, Development, Decentralization, Tehran metropolis.

INTRODUCTION

After industrial revolution, cities grew rapidly due to migration of villagers to cities and became large metropolises (Charles, 1992). Excess focus of population and activities, mainly onthe largest cities in developing countries, has led to attraction of vast amount of developmental potential of such countries to these cities and therefore, these cities are relatively second and third largest cities in the country. During the last fifty years in Iran, development of capitalism based on oil-based economy has led to stagnation in agriculture and rapid growth of cities. This rapid development was not balanced but growth of larger cities prevented smaller ones and villages from growing. In fact, among influential factors of urbanization is the lack of attention towards spatial effects of economic strategies. Lack of rational relation between allocation and distribution of capital and location and space factor on one hand, and distribution of resources on a regional basis on the other hand, brought unfavorable spatial effects including lack of balance in distribution of facilities and income inequalities among regions and orientation to centralization in one or few locations. Studies show that most of developing countries are not satisfied with the trend of spatial development of settlements and the manner of regional distribution of population and economic activities (Naveh, 1998).

Decentralization in Tehran is rooted in political and economic power structure since constitutionalism view so that with

establishment of bureaucratic and autocratic system and benefiting from oil incomes, there were numerous efforts to develop Tehran. This new bureaucratic system awarded Tehran a higher education centrality with fundamental changes in higher education system and establishment of Tehran University in 1934. Prior to emergence of issues related to centralization, development of universities and higher education was an advantage for cultural identity of this city. But with rapid industrial and service development and political role of this city, the presence of universities and higher education institutions paled into insignificance and with the increase of number of students in Tehran, cultural and social effects of universities got more futile. Above all, focus of more than half a million students in Tehran has brought even new educational and residential issues along with cultural issues as well.

Against this background, this paper seeks to analyze the centralization issue in Tehran metropolis from different aspects and find origins and reasons for this matter. Necessity of realization of decentralization is located especially in higher education sector and its reflection on favorable development for country and improving the status of the province in ranking to measure provincial development.

Literature Review

There are numerous papers on higher education matters. We mention some of them here, highlighted the benefits of decentralization, as well as reviewed related theories to decentralization in a paper entitled *Decentralization and Freedom in Higher Education*. In fact, Alexander developed a system for decentralization of higher education by deploying plans related to decentralization and decentralization methods and guidelines (Hall & Midgley, 1998).

In his research entitled *Decentralization from higher education in developing countries*, Bray (1985) first described decentralization, reviewed definitions and related approaches and analyzed positive and negative theories on decentralization. Then, he analyzed the reasons for decentralization of higher education in Papua based on political settings of New Guinea. Next, he conducted a comparative study and proposed a vision and executive plan based on political structure of New Guinea for decentralization of higher education.

They first reviewed models and experiences of decentralization and education and then studied political and cultural structures for India (Mukundan & Bray, R. 2004). Gilbert and Gogler (1996) concluded in their paper entitled cities, poverty and urbanization development in third world countries that the main reason for urban centralization in many countries is the status and administrative-political condition of government and modernizing organizations. There are various researches in Iran in this field which are briefly reviewed (Bhatia, 2004).

MATERIALS AND METHODS

There are different approaches in order to rank different economic, social and cultural parts which do not necessarily produce the same results. Among ranking methods with high differentiation power is "Technique for Order Presences by Similarity to Ideal Solution" or TOPSIS. This is a distance-based method which wasfirst introduced by Hwang and Yoon. Fundamental assumptions for this method are as follows:

For each index, higher values hould be better and lower values should be worse, or vice versa, meaning that favorability of each index is increased/decreased proportional to increase in value (Long, 2011).

Distance of an option with ideal option (or negative ideal) may be calculated by Euclidean distance (squared distance) or by sum of absolute values of linear distance (block distances) which is dependent on exchange and replacement rate between indices (Hadder, 2000).

Ratio of houses with running water, ratio of employees in industrial sector to all employees, ratio of families with telephone lines, number of clinics for every 50000 village residents, assistants and mid-wifes for every 1000 village residents, ratio of villages with baths, ratio of villages with running water, ratio of villages with electricity, average population growth, urbanization percentage, ratio of teacher to high school students, ratio of literates, ratio of literate females above 6 years old, ratio of literates with higher education to all literates, ratio of villages with telephone lines, ratio of agriculture workers, ratio of literate worked of agriculture, employment, ratio of doctors to every 1000 persons, ratio of hospital beds to every 1000 persons, ratio of nurses and assistants to every 25 beds, ratio of county areas to province area, ratio of employed women, ratio of cultivated areas to county areas.

RESULTS AND DISCUSSION

Tehran is the largest city with population of 13,422,366 people and is considered as the 18^{th} populated city in the world . This city is one of the largest cities in southern-west of Asia and the 27^{th} largest city in the world. Area of Tehran province is 18814 square kilometers and it boasts 11.2M people with 12 counties, 28 townships, 73 rural district and 42 cities. More than %84 of the population live in cities and %16 live in villages (Fig. 1).

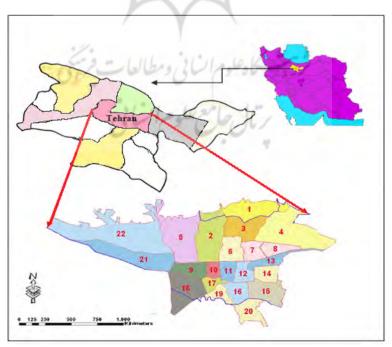


Fig. 1: Map of Tehran

Today, Tehran hosts more than 7 million people and its density is more than 10000 people for every square kilometer and currently is among major metropolises of Asia and Middle East. Along with demographic transformations, continuous and later, discontinuous development of Tehran started from 60's and led to formation of a Tehran metropolis. Thus, the domain of residency and activity spread to 30-40 km radius. In 1966-76, 7 cities of Gharchak, EslamShahr, Nazar Abad. Hashtgerd, Damavand, RobatKarim and Roodhen were identified to belong to Tehran (Fig. 1). Population of EslamShahr grew fifty times more than what was needed to become a city through 10 years (1966-1976) and gaininga urbanized identity worked as a motivator so that this whole process could be referred to as "urbanization epidemic" rather than natural growth of cities. In 2002, Tehran province included 13 counties and 42 cities and most of the populated cities and villages were in the vicinity of Tehran with less than 40 km from Tehran.

According to what is mentioned, it is concluded that centralization in capital brought centralization of higher education institutes. Next, we review the number and dispersal of higher education institutes in Tehran in order to

clarify the issue more. There are 91 universities and higher education institutions in Tehran province 75 of which are located in Tehran city. Among all 3,790,859 university students of Iran, around 668,594 of them are studying in Tehran universities and higher education institutions. Table 1 shows the student distribution among cities of Tehran province (Table 1).

As shown, most of the universities and higher education institutions of Tehran province are located in Tehran city. Following is the list of possible reasons for improper distribution of higher education institutions (Fig. 2 and 3). Major vectors are higher education, universities, executives and policy makers of Ministry of Science and Ministry of Health. There are other items including private and semi-private sectors active in the field of higher education such as Azad University, private universities and higher education institutions and higher education institutions operating under the supervision of governmental ministries, institutions and organizations. In order to give an account of quality and quantity and their role, it is necessary to conduct a combinational study. Distribution of universities and higher education institutions operating under supervision of Ministry

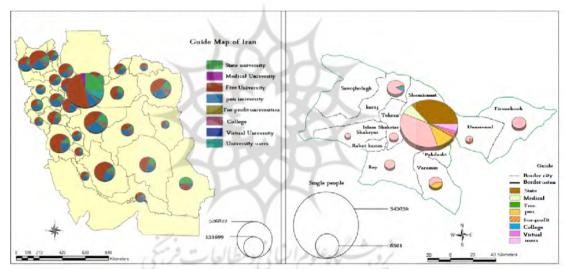


Fig. 2: Distribution of Azad University students based on the province of studying in 2009-10

Table 1: Tehran population share in urban population of country through 1956-2006 (Source: Statistical Center of Iran, 2005)

Year	The share of the population of Tehran		The total population of the country	
Tour	Percent	Number	Percent	Number
1956	27.2	11512000	100	5553000
1966	30.4	2980000	100	9794000
1976	28.6	4539000	100	15855000
1986	22.4	6023000	100	29953000
1996	17.15	6758000	100	37826305
2006	16.23	7711000	100	47495000

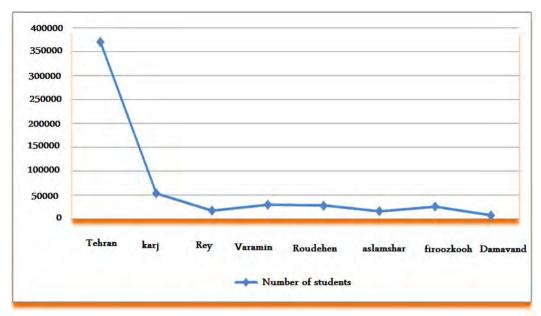


Fig. 3: Spatial dispersal of students in Tehran province

of Science, Research and Technology as the main ministry must be dealth with in the field of education. Though, after the revolution, medical faculties have been supervised by Ministry of Health and Medical Education. This separation has not disrupted the status of Ministry of Science and this ministry has gained more and more executive and educational experience. Concentration of such universities and higher education institutions and consequently, students and professors brings a lot of consequences.

As shown in Table 2, Tehran province has been allocated the 19th place in the ranking of development among 30 provinces of the country based on the development indices and statistics of 2006. Therefore, it is not a favorable status. In this regard, decentralization of higher education can decrease the issues of Tehran and set the grounds for improvement of development indices and general welfare of citizens and implementation of social justice and realization of development.

CONCLUSION

Today, Tehran is the population and urbanization pole of our country with around a quarter of urban population. Along with demographic transformations, continuous and, later, discontinuous development of Tehran started from 60's and led to formation of a Tehran metropolis. Thus, the domain of residency and activity spread to a 30-40 km radius. In 1966-67, 7 cities of Gharchak, Nazar Abad, Hashtgerd, Damavand, RobatKarim and Roodhen were identified to belong to Tehran. Among motives for migration to Tehran are economic/ social factors which create more job opportunities and return on investment by concentration of investment in industries and development of services. On the other hand, it created repelling economic factors for those places which people migrate from. Increase of gap and lack of balance for distribution of services, educational, medical and other facilities between Tehran and other cities of the country intensified the migration trend to Tehran in the past decades.

Centralization in capital brought with it centralization in higher education institutions. Among all 3,790,859 university students of Iran, around 668,594 are studying in Tehran universities and higher education institutions.

At present, we are witnessing the increasing development of countries in the world. Awareness towards various parts of the country is necessary in order to advance development goals. Therefore, by applying TOPSIS technic, development degree was calculated for provinces of Iran based on the development level. According to results, Tehran province has garnered the 19th place in the ranking of development among 30 provinces of the country based on the development indices and statistics of 2006. Therefore, it is not a favorable status. In this regard, decentralization of higher education can decrease the challenges of Tehran and set the grounds for improvement of development indices and general welfare of citizens and implementation of social justice and realization of development.

In such a case, there would be no appropriate space for scientific development and university activities and university activities would be confined to daily concerns for life in such a metropolis. Therefore, it seems that organizing higher education with the goal of decentralization from Tehran and placement of part of them in academic cities near Tehran could be an approach for decentralization of Tehran and achieving favorable and optimum development. There is no doubt that in order to establish a balanced urban order in Tehran, we should consider other factors for decentralization and their effects. Although regarding holistic approach, the issue of decentralization of higher education was studied due to its special status and importance. Considering the recent decentralization policy, cities of FiroozKooh and Damavand are proposed for attracting students of Azad universities and Varamin is proposed for attracting Payam-e- Noor students of the province and Hashtgerd is proposed for accepting part of activities of governmental universities for undergraduate studies as appropriate locations for identical spatial distribution.

Table 2: Ranking of provinces based on development factors in 2012

Rank	City	Priority Index	Distance from the negative ideal	Distance from the positive ideal
1	Khorasan Razavi	0.689	0.0401	0.0181
2	Fars	0.534	0.0289	0.0252
3	East Azarbaijan	0.513	0.0284	0.0269
4	Khuzestan	0.494	0.0276	0.0283
5	Yazd	0.475	0.0315	0.0348
6	Easfhan	0.456	0.0274	0.0326
7	Semnan	0.436	0.0273	0.0353
8	Kerman	0.431	0.0260	0.0344
9	Kurdistan	0.422	0.0240	0.0328
10	Zanjan	0.415	0.0237	0.0334
11	West Azerbaijan	0.414	0.0228	0.0323
12	Markazi	0.406	0.0235	0.0344
13	Golestan	0.401	0.0232	0.0347
14	Mazandaran	0.395	0.0238	0.0365
15	Ardabil	0.394	0.0229	0.0352
16	Hamadan	0.392	0.0219	0.0339
17	Kermanshah	0.390	0.0220	0.0344
18	South Khorasan	0.389	0.0242	0.0380
19	Tehran	0.374	0.0248	0.0415
20	Lorestan	0.365	0.0202	0.0351
21	Qom	0.349	0.0228	0.0426
22	North Khorasan	0.342	0.0202	0.0389
23	Gillan	0.341	0.0203	0.0392
24	Sistan and Baluchestan	0.331	0.0212	0.0427
25	Ilam	0.328	0.0195	0.0399
26	Qazvin	0.324	0.0193	0.0403
27	Kohkiluyeh	0.309	0.0192	0.0429
28	Bakhtiari	0.306	0.0179	0.0406
29	Bushehr	0.290	0.0169	0.0414
30		0.250	0.0143	0.0429

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