5th
SASTech
Iran |Mashhad
May 12 - 17 | 2011

5th Symposium on Advances in Science & Technology

RESEARCH
Tech
Communication
Conference
E-mail

Evaluating the effects of globalization on Tehran's Urban Form.

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Abstract:

After experiencing modernization processes and its effects on urban forms, the recent attempts of Tehran to represent its potentials in global system via constructing highways, iconic building and focus on cultural and financial aspects such as holding artistic and scientific anniversaries reminds international challenges of developing countries during globalization process. Initially, comparing Tehran with global cities such as New York, London or Tokyo may seem uncommon but as the world is undergoing a process of change, Tehran cannot be an exception and is on a new direction varied from its previous modernization stage. The purpose of this paper is to identify particular characteristics of this stage and the way Tehran can be labeled in the literature of global cities.

Although, evaluation of Tehran's globalization process can be conducted based on various criteria and frames, this paper aims to assess the urban form elements of Tehran based on seven criteria: urbanism, image and identity, spatial organization, social ecology, public realm, development style and local architecture which are monitored across three political periods: Qajar, Pahlavi and after the Islamic Revolution. Additionally, four elements of globalization process i.e. capital and financial transaction, population and movement of people, cultural aspects (transfer of ideology and lifestyle) and ultimately informational technology which have impressive reflections/influences on urban forms of cities are discussed. In conclusion, according to these two aspects (urban form and globalization elements) the place of Tehran among other global cities are discussed and defined.

Key words: Tehran, Globalization, City form, Culture, Communication Technology

1. Introduction:

Cities as dynamic and alive organisms undergo remarkable transformations and changes across time and in various social, political, economic and cultural aspects. Apart from the view point of professionals and non-professionals that describe the mentioned features and characteristics of the city based on their own language, forms of the cities has their own narrative of the changes and transformations they experience. After the introduction of modernism to Iran, which is an accepted fact by many commentators and manifests in wide streets, dominance of vehicles, unlimited growth of metropolitan cities, population migration, provision of urban infrastructures etc, a new phenomenon can be identified in Iranian metropolitan cities these days which while having similarities with the features of

modern era, has its own particularities. Evolution of new urban phenomena such as electronic services, supporting the economic privatization, defining new urban projects such as Virtual Tehran, dominance of shopping centers by international brands and finally emergence of a new urban culture practiced by different classes all signify the entrance of Iran into a new phaze distinctive from modernism.

Despite the widespread use of the term globalization during the last decade, its meaning and concept is still a contested one and depending on the viewpoint and worldviews, it may be interpreted differently which is reflected in the use of various terms such as globalization, globalism, Westernization and Americanization in many societies such as Iran (Sabaghian, 2010)

Such different viewpoints have resulted in two approaches to the phenomenon of globalization: while a group of people have a positive view of globalization and see it as a process which provide many benefits and opportunities to societies, another group perceive this phenomenon negatively and see it as a project designed by world powers along their interests. Those who support this viewpoint, are termed anti-globalization groups which are various in style and approaches. An in-between viewpoint, however, believes that globalization, similar to many other phenomena, has its own pros and cons and countries and societies should take advantage of its opportunities based on a comprehensive knowledge and avoid its threats.

Apart from such inconsistencies, globalization includes a vast variety of political, economic, cultural and social processes which refers to different concepts such as following classic liberal policies (free market policies) in global economy (economic liberalization) , growing dominance of Western political, economic and cultural values (Westernization or Americanization), growth of new information technologies (Internet revolution) and the hope for formation of a united society without social conflict (global village).

There is no agreement among commentators about the factor behind the condition known as globalization. Moreover this disagreement is also about its starting period. The contest about the essence of globalization have produced arguments mainly concern about the consequences of globalization such as increase of commodities and services, expansion of human and capital movement, supporting the influence of multi-national corporations, increasing influence of technology and in summary reciprocal interconnection of international system.

Globalization has also considerable impacts on political realm. Traditionally, policies of each country were valid within the local framework of that country and the national states had the ultimate responsibility for preserving the safety and economic welfare of their citizens and also human rights and environment within their boundaries. Global influences have infused the political decision-making of countries with global functional system and have highlighted the role of global institutes and organization and reduced the role of national government.

In cultural fields also technological innovations such as Internet, fax devices, satellite and Cable TVS and emergence of global media have blurred the cultural boundaries between nations. The vast political, economic, social and cultural aspects of globalization process, has influenced the social and individual life of citizens in different countries. This fact has encouraged some institutions to invent some synthetic indicators rank different countries based on their participation in globalization process (Sabbaghain, 2000).

Apart from the criticized theories and discussions around the globalization process and political, social, economic and cultural transformation that it has imposed upon societies, it is noticeable that global cities contain characteristics that while having commonalities with each other, also have their particularities. In other words, the landscape of global cities reflects their transitional, virtual and electronic essence. Various dimensions of civil life such as poverty and wealth, dominance of definite institutions and values, aesthetic preferences of sub-cultures, historical depth of cities, safety and security of society, the respect that citizens show to social norms etc have found external expressions and have made assessment possible.

Familiarity with the urban form, as the contact ground between people and urban phenomenon and as a dynamic and not static concept, through its components, can transmit the values of a society to the outsiders, weaken or strengthen the national pride, present the type and position of values in urban everyday life, help to discover the degree of citizens commitment to social norms, or narrate the dominance of economic, political and cultural institutions in the city and present different historical chapters of an urban society. It is even able to reflect the dominance of religious values in the city. If we consider the form of a city as its image, various factors and conditions such as political economic and cultural environments and condition are affected by and affect globalization.

Urban form consists of different parameters including: urbanism, identity and mental image of citizens, spatial structure, social ecology and mixture, type and distribution of public realm and urban spaces, type of urban fabric development and contemporary urban architecture (Pizarro et al, 2008). On the other hand, according to Appadurai (1996) various dimensions of globalization can be categorized in five humanistic, media, technologic, financial and ideological properties. Another theory summarizes these features in 4 parts including financial capital, population, communicational transformations (technologic and electronic) and culture.

The objective of this research is to evaluate some of the mentioned factors and their influence on dimensions and characteristics of Tehran's urban form. Therefore, questions such as the degree of Iran's participation in globalization process and the influence that Tehran's urban form take from this process and Tehran's share of properties of global cities will be explored. Study of Tehran due to its specific position in the Middle East and its economic, political and cultural conditions needs a deeper speculation. It is also because this city needs to stabilize its position in its geographical location in the world and region and since it is mentioned as a global city in the recent comprehensive plan of Tehran (Moin, 2010). Therefore evaluation, observation and study of what emerges out of the city become very critical. Even though there have been many studies and attempts to understand Tehran from this perspective, but the reciprocal interaction of city form properties toward globalization processes is an attempt that this paper aims to fulfill.

2. Research Methodology:

Initially the relevant literature of globalization process and parameters of urban form is reviewed using documents including books, Iranian and international journal papers, magazines etc. Then by reviewing the history of Tehran, across three recent periods (Qajar, Pahlavi and post-Revolutionary era), the transformation of its urban form is explored and finally in post-revolutionary period, besides reviewing the parameters of urban form, factors behind globalization process and their representation and manifestation in the city is explored. The references in this section are based on the

statistics and censuses extracted from websites of different organizations. Then the challenges Tehran confronts are argued and finally the summary of information and position of Tehran regarding the globalization process are defined.

3-Literature Review:

   3.1. City form: City form consists of all the visible formal elements and features of the city, natural and artificial components and is the spatial manifestation of social activities. City form has a three-dimensional and compositional essence that is manifested both two and three dimensionally. The tiniest elements of this composition are artificial elements of people, buildings, road networks, open spaces and urban infrastructures. The natural environment with major elements such as land and its topographies, water flows, vegetation etc, influence the quality and composition of formal elements. Each of urban elements that work as an urban cell has its own individual form and the combination of this complex creates the urban form (Abbaszadegan, 2009).

   Despite many studies about "urban form", the ideal and scientific methods and principles to analyze it is yet to be developed. In fact due to vast formal and spatial size of cities and interference of many contradictive forces in their formation and development, it is difficult to assess, survey and control the visual qualities and formal scape of the cities. Based on the literature review of urban form seven factors are distinguished as follow (Pizarro et al, 2008):

Urbanism: the first and most comprehensive factor which has a significant role in quality of urban form is urbanism. This factor does not just refer to physical dimension of city but also urban living quality or mental activities relevant to it and planning methods: urbanism is culture or living style of citizens. Life experiences, activity patterns, social environment and life style in a city create its "ambiance" which is referred to as urbanism. While urbanism may seem a bit unstable and a delusion, it is one of the major components of urban form.

Mental image and identity: This factor which is studied by many researchers such as Kevin lynch and Appelyard and developed by others such as Sandaruck and Tajbakhsh, refers to the abstract structure of life style and perception of cities in the mind of users. Parameters of mental image are constructive of identity and differentiate of local places from their broader contexts.

*Spatial structure***:** Refers to density structure and building patterns, and in more general terms, to urban fabric structure. For instance spatial structure of a city may consist of one or a mixture of mono-nucleus and multi-nucleus, vast, dense etc patterns.

*Social Ecology***:** This dimension of urban form, results from the interaction of sociology, economy, politics etc which lead to the population distribution patterns in urban spaces. Moreover social and ethnic segregation and disadvantage of social groups can be considered as sub-categories of this factor.

Public sphere: Urban public spaces and their facilities and features and their distribution across the city are another component of urban form. Legibility and openness of urban spaces and their probable transformations are also important.

Scale and type of new developments: Types of urban grains, fabric and scale of new development in physical structure of cities are other factors which affect urban form. Harmony or continuity/discontinuity of new developments and their scale play and significant role in urban form of cities.

Vernacular Architecture: The last factor influencing the city form is the vernacular architecture of each city which defines it as a narative; The visual form of a landscape has a significant place in formal structure of cities.

3.2 Globalization and its effective parameters on urban form:

Globalization is a process, a transitional, cyclic and unstable stage. According to the transitional theory of commentators such as Manuel Castells (1993), David Harvey (1989) and Antony Giddens (1990) from 70s to 80s the economic transaction among countries has tended toward a global economy. Other commentators such as Amin and Thrift (1997) believe that the real globalization started since 1980 and is in fact a result of time-space compression made by combination of technology and communication.

Globalization process in most colonized countries was triggered since the dominance of colonizer powers. Today these countries are known as third world countries. Some of the major impacts of globalization on city form are, standardization and universalization of urban systems, widening of urban streets, increase of building's height, zoning and segregation of urban land uses. According to researches on urban form, urban elements can results from 4 dimensions of globalization. These 4 features include capital, population, information and finally culture that will be explored respectively. It should be mentioned that these 4 factors are not much different from the theoretical framework suggested by Appadurai (1996) one decade ago who studied the globalization phenomenon through exploring the following 5 landscapes:

1-Human landscape; 2-Media landscape; 3-Technologic landscape; 4-Financial landscape; and 5-Ideological landscape

Each of these landscapes result from movement and transmission of related phenomena. In other words human landscape results from movement of people for different purposes in space; media landscape results from movement of images and events across societies; technologic landscape is influenced by movement of messages and knowledge across the world; financial landscape results from the capital transaction and finally ideological landscape results from movement and interaction of beliefs and blurred boundaries of ideologies confined to a defined geographical and cultural island.

While it is possible to add other factors to the mentioned framework and landscapes, it seems that the above factors are the main popular issues in study of the urban form. Moreover, there are many controversies about the relation between globalization and production of urban spaces. For instance some commentators limit the study of this process to networks and flows. Others such as Castells (1993) emphasizes on "spatial flows" rather than "space of place". He believes that many people live needless of proximity of physical boundaries. "Spatial flows" in Castells's term produce the real culture in the world which is characterized by eternal time and placeless space. He believes that the influence of social context of places is even more important in flows and financial networks.

It can be said that that transformation of city form is one result of global networks. On the other hand, capital transaction and its non-stop transaction across network of global cities is one of the effective factors in globalization process. The network of global cities creates a kind of financial stability for global capital and as long as cities are connected to this network, they find further opportunities to attract global capital through constructing specific buildings and catalytic projects. This will improve the global image of cities and will turn them to a node and major station in the global network (Amin and Thrift, 2006)

The globalization of cities plays its role at different layers and scales but what is apparent is incompatibility of this process with traditional models of urban structure such as core-periphery, multi-cores and even multi peripheries. This process also does not follow models and theories of migration and service surplus or even production-consumption system which is the engine of cities or neo-Marxism models. Globalization process needs a kind of global capital transaction which is based on free market ideology. In other words, the main characteristics of this process is "consumerism" and in general post-modernism. A concept which is not just limited to the consumption of commodities but also their signs.

3.2.1 Capital factor:

The landscape of cities displays their scale of financial capital. Transformation of urban form and life experience in cities results from their economic structure in local and international scale. Globalization includes the increase of capital flows in forms of international financial systems, market supply, commercial institutes and main urban centers. Obviously, cities that have a larger role in connecting regional, national and international economies are agglomerated in the first world including cities such as London, Tokyo, New York, and Los Angeles etc. Removal of commercial obstacles in developing countries increases access to global commercial companies; these companies search for lower land rents and work force payments with higher chance of capital return inside third world countries. External investment is one of the dreams of developing countries which is possible through freeing internal capitals and provision of urban infrastructures and urban services to encourage external investment.

The issue of global commerce and capitals is not limited to opening the economic gates of cities. Some optimist commentators believe that global networks of capital provide opportunities for reciprocal profit-making for both investors and host countries. On the other hand, John Friedman notifies the inconsistencies in regional and urban population resulting from external investments. Utilitarian selection of people leads to social polarization and thus social segregation which manifests clearly in cities. Another outcome of external investments is lack of spatial consistency and isolation of new spatial developments. Urban landscape similarities, privatization of public realms and transitional and compositional urbanism are other results of global financial flows. While Saskia Sassen (1991) believes that technologic inventions lead to suburbanization and decentralization of urban economy, Dick & Rimer believe that urban system and form in Asia is more and more Westernized everyday and emergence of multi-centre cities and gated communities are evidences of this tendency. This is also evident in formation of CBDs and growth of big international companies inside them. Sassen calls some of the capitals in developing countries such as Bangkok, Taipei, San Paolo, Mexico-city and Buenos Aires, "endless metropolises" and not global cities.

Development of infrastructures, emergence of urban CBDs, tax increases, global economy, increase of developments manifested in urban skylines and impacts of big projects such as CBDs, Shopping centers for consumption only and dominance of international commercial brands such as McDonald, Coca Cola, Adidas, Nike etc all indicate that governments are more concern about the global image and rankings of cities rather than the quality of citizens' life.

3.2.2 Population factor:
This factor is dependent to 4 following paradigms: Migration, tourism, commercial trips, and air travels. Population factor turns cities into a field for competition, diversity and contrast. Transformation of economy from those relying on

rural products to global economy systems leads to polarization phenomenon and thus change of urban dwellers income, which makes rich people richer and poor ones more fragile.

3.2.3 Technologic communications and information: This factor consists of electronic activities including information presentations, microelectronic, computer and tele-communication. Using this factor, images, science, information and signs, in a global system and in a defined time frame, connect people and communities together. This factor has blurred the geographical boundaries and their objective formats. Due to vast information and technologic networks in cities, physical activities are marginalized, sense of place is lost and this has turned contemporary cities into a mixture of "urban places" and "electronic spaces".

Sense of place in cities is also turned into "media" experienced places. It is even possible that virtual public spaces with appropriate accessibility, friendliness, freedom of activities and public control and management similar to "good urban spaces" mentioned in Lynch's writings, replace the concrete ones. Similar to population factor, information markets also can widen the gap between countries and rich and poor classes.

3.2.4 Culture factor: Global flows have also activated another factor, which highlights the meaningless of physical boundaries between cities again. Spread of   Pop   music, Hollywood movies, TV shows, computer games, fashion and tourism along with ideology of universal consumerism have led to another global consequence unprecedented in the history of mankind. There are few countries in the world today that have remained uninfluenced by the Western consumer culture based on entertainment and commerce.

Global similarity results from Western media and global consumerism and the impact of global culture on cities seems superficial, however, interaction of the real essence of cities between their appearance and inner qualities has led to transitional qualities for global cities.

Symbols of global culture have penetrated into societies and merge with vernacular culture. Meanwhile, local cultures have to join to the rest of the world: The question here is whether globalization also unifies "form and architecture"? Researchers such as Custner believe that city form and architecture, similar to other features of global culture i.e. media, sport, game, entertainment etc, can also be changed and become global. Others see them as products of Capitalism which through improvement of visual, commercial and consumerism aspects via media, advertisement etc maximizes profit. Nevertheless what seems certain is that architecture and city form are not creator of capitalism process but its theater stage.

Due to the existence of big, international commercial companies such as Nike, Coca Cola, Adidas, McDonald, Hollywood etc in USA and production of more than 70% of music and songs by MTV channel, some people see globalization equal to Americanization while what is consumed and the profit achieved by this consumption does not necessary go to Americans. It is only the "idea" of selling and consuming which rises from America.

3.3 A review of Tehran's history: As mentioned before, the historical origins of globalization is a contested issue as some people believe that globalization has resulted from the attempt of all societies and humankind since the birth of cities. Therefore, for more familiarity with Terhan, its pre-revolutionary history during Qajar and Pahlavi dynasties is also explored:

3.3.1 Qajar Period (1794–1924):

Tehran was selected as the capital city after the establishment of Qajar dynasty. Due to the interaction of rulers of this dynasty with Western countries and their inspiration by Industrial Revolution, the old patterns were abandoned and new methods were utilized. With the discovery of oil by the mid nineties, Iran achieved higher importance in international landscape and this paved the way for presence and intrusion of foreign powers such as England and Russia in Iran. Due to in-appropriate institutional organization, the production system was disrupted and external capitals invaded the country and lack of support by the central government of internal and local products, under minded production independence and turned a productive society into a consumer one.

With the integration of Iran into the global economy, local markets disappeared and political and economic reliance on foreign governments started. All these factors led to the functional zoning across the city. Emergence of new functions such as Cinema, Telegraph house, Post-office, Bank, Clock Tower etc and streets with various functions, Eclectic architecture, modernism, embassies, bourgeois class were characteristics of this era. However the cultural and spatial patterns of Tehran inherited from previous periods continued to exist (Habibi, 2004).

3.3.2 Pahlavi Period (1924-1979):

Pahlavi period, is the era of changes in urban forms and appearance but not content. Presence of foreign economic-political forces, disconnection from the past, departure of the society to capitalism, supporting the capitalist development style, influx of foreign commodities and imports, setting up the oil revenues as the major source of income, emphasis on global aspects of modernism, polarization of activities, open gates policy, guaranty of foreign investments, transition from workshop to factory economy, huge migrations due to land reforms, montage industry, social distribution of jobs, mono-commodity industry (oil), import of commodities, trading land as capital, state ownership, encouraging Western life style etc turned the productive society into a service and then consumer society. This undermined tribal, rural and urban social patterns and ignorance of time and place shifted Iran toward globalization. Inconformity of city's subjectivity and its objectivity and flow of subjective concept of place in time, provided a new city image. An image which is described as dependent city, trade city, fake city, delusion city and mirage city. City becomes a symbol of progress and development, however, this evolution is from outside not inside. Therefore spatial structure of the city also transforms. Grid fabrics and streets replaced the twisty old ones.

Time in bazaar replaced its place. Streets were widened and developed and Tehran expanded rapidly. Destroying old city walls, grid urban fabric, inflexible spaces, public spaces and squares, construction of industrial cities, universities, hospital, railway station, factory etc are other transformations that took place in Tehran (ibid).

Tehran Urban form parameters	Pahlavi Period	Qajar Period
Urbanism	Service and administrative concentration and industrial development in the city, Isolation of service systems from bazaar after modernization	City as manifestation sites for capitalist relations, city as source of Capitalism, emergence of new urban functions
Mental image and identity	Western modernization attitude, Destruction of Tehran's gardens, Lack	Emergence of intellectual classes, imitation of Western countries,

	of urban landmarks, Western life style	Western life styles, importing elements of vernacular identity
Spatial structure	Expansion of service and commercial activities in northern suburbs of Tehran, Division of urban centre into a commercial and administrative section	Governmental, institutional , religious and bazaar functions, residential buildings copied from European models (Shams-ol-emareh)
Social ecology	Movement of royal family and governors to Northern areas, Social polarization, class gap and suburban formation	Governors and royal families, new intellectual classes, clergies and masses, beginning of social polarizations
Public realm	Entry of cars into public spaces,	Bazaar as a public space, emergence of street life
Vernacular architecture	Westernization and lack of indigenous modernity, imitative buildings, Modernist planning (Shahestan Pahlavi, Ekbatan Town, Mehrabad Airpot ..)	Penetration of Western styles and their localization with features of Iranian architecture (Tekye Dolat, Shamsolemareh, Darolfonoon School, Yaghoot Palace \
Development type	Zoning of urban land use, Anarchic plot patterns and building height	Change of skyline, Increase of development scale, large grain size of urban structure, destroying of Tehran city walls and its expansion

Table1. Urban form parameters and their transformation during Qajar and Pahlavi Period (source: authors)

3.3.3 Post-Revolutionary Period (1979-present):

After the Revolution (1979) Tehran achieved a new face and set forward some major goals of which cultural and political independence were more emphasized. Despite many efforts to achieve this independence in political, social and economic areas, due to the vast pre-revolutionary impacts, this approach was not very successful. Moreover, due to framed economic relationship based on global economy and Western technologic tools, it was difficult to avoid this process. Fashion and Western life styles continued to be popular among affluent groups who had the financial and economic powers such as bazaar in their hand.

In a short period after the Revolution, with the Iran-Iraq war, an interruption occurred in planning process and urban growth of Tehran. After the war, a process of reconstruction and reforms started. The influential role of private investments in post-war period and tendency of investors in using Western patterns led to formation of urban centers with new economic activities. Consequently, modern and universal architecture and urbanism dominated the urban landscape and many problems and difficulties emerged (Hourcade, 1992; Madanipour, 1998).

The seeds of Western patterns planted in the urban form, were flourished at this period. Standardization of urban systems, widening of streets to facilitate vehicular movement, increase of building densities and highways and bridges which penetrated the urban fabric and public and private realms are some examples. Due to Tehran's strategic location at the Middle East, it could not avoid the globalization process thus with technologic and communicational developments, urban culture in Tehran was also transformed both

[1] (Ghobadian, 2005, P.18)

qualitatively and quantitatively. To better understand Tehran at this period, two issues of 1- Tehran's globalization dimensions and its 2-urban form are discussed separately here:

4. Results and Analysis

4.1 Dimensions of globalization in post-revolutionary Tehran: To evaluate the cultural transformation of Tehran based on the proposed framework of this period, we can discuss the global flows of culture across 5 factors of human, media, technologic, financial and ideological landscapes:

4.1.1 Human Landscape: Human aspects and influences can be argued through tourism and international and national migrations. Plans and policies of the country for supporting tourism were taken into account specifically since the third national development plan. Even though during the recent years, regarding the economic condition of the world in one hand and political environment on the other , a decline in tourist attraction is evident, the official census indicate that annual capital gain of the world tourism is over 800 billion dollars of which Iran's share percentage is only less than 0.1 % (Jahan News, 2009). Internal migrations which had started since the land reforms were testified during this period due to increasing concentration of services and facilities in Tehran. Stable economic, political and cultural conditions were the major attractors of migrants. Most of foreign migrations for living in Tehran have been from Afghanistan (Vosooghi, 2002). In other words it can be said that except some limited investment for oil and gas in Iran, presence of foreign migrants for better living condition is rare.

Of other human landscape influence issues in Tehran, is the rate of university graduate students that has rocketed during the recent years. Statistically, number of students has increased from 175,600 in 1979 to 2,146,895 in 2004 and 3,400,000 in 2007 (Memariani, 2008). These group of educated people based on universal criteria and knowledge, have created a new class and social ecology in Tehran who are familiar with Western life style and ideology. Therefore, teachings of this group influence their life style.

4.1.2 Media Landscape: A vast amount of information is distributed via Medias such as newspapers, magazines, TV programs, music etc. Despite resistance of public media against broadcasting foreign movies (Khabar online, 2009), TV as the first communication tool, is the main medium through which global culture is transferred to homes. A vast volume of global culture is transmitted via programs and soap operas such as Friends, Lost, TV Shows such as Dallas etc. Many people in Tehran have easy access to satellite TV, Internet programs and Hollywood movies now. Widespread use of films, programs and foreign songs in English language by Iranian society has imported many terms into their everyday conversations. Moreover publication of English language newspapers has risen in recent years as 215 representatives of foreign Medias from 5continents and 295 of foreign reporters are active in Iran now (Malekian, 2008).

4.1.3 Technologic Landscape: Distribution of technology across Iran is another dimension of globalization process in Iran and specially Tehran. Ownership of cell phones is higher than Telephones. 15 millions of cell phone devices were sold in 2008 which has reached 53 million now (Iranian Students News agency, 2010). According to statistics of the Ministry of Science, Research and Technology, the number of graduated students in technologic majors in 2006 was 46053which manifests the tendencies for being global. Despite limitations in accessing Internet and its low speed, number of Internet users is about 24.5 millions which is the highest number in the Middle East (Hamshahri

Newspaper, 2010). Also, Tehran Municipality's effort to join ICT network is another evidence of technologic improvement in recent years (http://www.pca.ir).

4.1.4 Economic Landscape: Tehran has opened its gates for global investments. Tehran has been the host of many big international companies such as F.A.C, Hanswell, P.O.C, N.E.C, and had co-operated with prestigious construction companies such as Perlit in building Tohid Tunnel and other projects before the sanction of Iran for its nuclear Power Station (Rooye Khat Magazine, 2005). Increasing foreign investments up to 143,427,000 $ from 1993 to 2007 and achieving the 9th position in terms of foreign investment in Asia, shows the economic progress in international scale. Even though a considerable part of these investments are in oil and gas industry, presence of many famous brands such as Nike, Adidas, Benton, Sony Ericson, Samsung and academic and scientific coalition with high-status Western universities are all symbols of economic growth and stabilizing this growth in recent years.

4.1.5 Ideological Landscape: Ideology of Islamic Republic of Iran is clearly relflected in its Constitution Rule which is the most fundamental text in terms of understanding the dominant values and ideologies of the state. This document contains the religious beliefs, worldviews and ideas that frame foreign policies of the country. The prophecy and objective of this rule is defined as "to realize the doctrine of the Islamic movement and to provide conditions to nurture people based on prominent and universal Islamic values" (Mozaffari, 2009).

The widespread wave that Iran and its policies have created in the region and globe is also considerable. The current structure of international policies is declared unfair by Iran. The foreign policy believes that the current corrupted world order should be replaced with an Islamic one which is legitimate, fair and reasonable. Until realization of this utopia, the divided world between the good and evil will continue. The soft power of Iran which emerges from sympathy of parts of the Muslim world due to Iran's resistance against US policies cannot be ignored. Even though the government is facing different challenges in the international arena such as economic sanctions, its Islamic ideologies show little signs of retreat.

Alternatively, introduction of diffused political ideologies, values and beliefs to Iran is another significant issue during the recent decade. While the recent political direction of the country has put forward the encouragement of national production and discouraging use of Western products and commodities, consumptions of foreign products continue by affluent groups. Driving prestigious cars in the streets, continuous use of brands that have been banned by the state and peoples' attitude towards commodities and ideas that have roots in US and the West, all reflect the transmission of ideas and beliefs among societies and that political, military and economic forces cannot control or stop them. Meanwhile, along with the Western lifestyle of affluent groups known as Northern Tehranis, another story can be read among the marginalized southern residents of Tehran. Nevertheless, the rise of ideas and various viewpoints that are spread through media, Internet and TV, are evidences of extension of ideas in Iran. Moreover, rise of different cultures and somehow in contrast with the ideological directions of the country manifests the spread of ideas in Iran.

4.2 Tehran's urban form after the Revolution:

The political change of the country resulted in significant transformations in many aspects of the society. The expansion of Tehran after the Revolution emerged from factors

such as Iran-Iraq war and war-migrants, concentration of most educational, sanitary, medical, and welfare facilities in Tehran which led to population growth and thus many economic and social problems such as traffic jams, job shortages, poverty, social polarization, etc.

With land, becoming one the major sources of capital accumulation, many people were attracted to invest in this section including many unprofessional and jerry-builders which reduced the quality of Tehran's urban landscape. Activities and investments in construction section implemented to maximize profit, minimize expenses without adhering to standards. On the other hand, international companies and firms left their signature in forms of buildings in public sphere without a participatory or bottom-up process, prevented the social justice and ignored citizen'z rights and preferences. Widespread use of new materials and Western new styles in construction market, made the urban landscape chaotic and messy. Of clear consequences of this process is the chaotic skyline of Tehran which does not much to transfer to its citizens and the world (Raisi and Tolami Moghaddam, 2009). Construction of iconic and high buildings to create spatial contrast and …in urban structures is another movement is recent transformation process of Tehran's urban form. Erecting towers such as ASP and Milad Communication Tower are evidences of this.

According to recent studies, the height of Milad Tower is neither due to its communication or satellite role nor for functional reasons but rather a symbolic and iconic role in the urban landscape. A survey of 1180 Tehrani citizens revealed that Azadi Tower is the symbol of Tehran's identity which was built during the modernization process of Tehran but its technologic symbol are highways and Milad Tower (Hamshahri Newspaper, 2007).

Of negative consequences of uneven technologic development across the city of Tehran, are informal and unqualified constructions and ruining of urban landscape in historical zones and districts. Tehran's seducement and provocation of migrants to come to the city leads to informal settlements and ghettos (Raisi and Tolemi Moghaddam, 2009). The following table summarizes the component factors of urban form and indicators of globalization process:

Globalization indicators				Urban form components
Culture	Technologic information and communication	Population	Capital	
Placelessness, consumer culture	Virtual urbanism	Weak local identity	Contemporary polarization, timeless spaces, internal and not external dynamism	**Urbanism**
Duality and ambiguity	Cliché culture, mass culture	Social disparity, challenges for planning of global city	Modernity, Western life style,	**Mental image and identity**
Suburbaism, edge cities	.Placelessness decentralized Spatial .centralization discontinuity	.Sprawl and siperse transformation and	Change of urban hierarchy Isolated land uses, vertical growth	**Urban structure**
Intensified social polarization, ethnic identity	–	Social segregation, polarization	Social segregation, polarization	**Social ecology**
–	Increase of Internet	Increase of scales due	Large development scale,	**Development**

	networks	to residential and facility demands	change of skyline, large grains in urban structure	
Selling places, superficial and	Timelessness, Universalization	Increase of diversity, Façade anarchy	Competition, decline of diversity, symbolic consumption, redevelopment of traditional zones	**Local architecture**
Consumer culture	Virtual cafes,	Public realms in personal spaces	Lack of publicness, commercial castles, public-private confusion	**Public realm**

Table2. The component of urban form and indicators of globalization process
Source: Authors

5. Discussion and conclusion

This paper aimed to explore the impacts of globalization process on urban form of Tehran metropolitan city to define its position in the global environment. According to the reviewed literature, the highlighted parameter among four components of globalization (i.e. population, capital, technologic communication and connections and culture) in Tehran, it is the technologic communication and information, which despite its limited accessibility, plays the major role among other dimensions. Culture is the second parameters in this category. Cultural forces specially in religious areas, which are top-down and implemented to combat the cultural invasion of the West, are present everywhere in Tehran from formal advertisement to green spaces, billboards and vehicles, banks and bazaar etc (Shariati, 2009). Alternatively a bottom-up process, proposes concepts such as a diverse, individual or social, fluid and unruly faith (ibid).

The third parameter refers to population and migrations. However Tehran faces many limitations regarding this factor as with having two international airports and some bus terminals and a 50 years old train station, is not able to support the easy and fast movement of commodities and passengers which has made Tehran in a low rank among other metropolitans despite having metro lines in recent years. Despite study of Sistra (a French firm) for future metro development, there is no evidence for anticipating further lines and stations for movement of people and commodities in suburban and exurban areas and it is not clear why expansion of train-station is proposed instead (Moini, 2010).

The last position belongs to economy and capital transaction in Tehran. According to the literature, global cities are defined as those able to participate strongly in economic and information exchanges. Tehran's share of global economy is low and in some areas is not competitive even in the region (ibid). Superficial representation of globalization process of Tehran can be defined based on its urban form parameters mentioned above:

Urbanism: Optimist migrants come to Tehran in hope of better life and civility, leave behind their place of memories and roots and spiritual capitals. Nevertheless what they achieve is not citizenship or civil society but a …urbanism. Thus urban spaces with no sense of place or identity grow further in Tehran and they owe their formation to urban residents' neglect.

Mental image and identity: With widespread dominance of Western culture, mental image and identity of residents of their city is disperse, dual, multiple and ambiguous.

Spatial structure: In general it can be said that, spatial discontinuity is a clear feature of Tehran's spatial structure. Lack of urban hierarchy, suburban growth, and expansion of isolated lands, densification and discontinuities in urban development are all evidences of discontinuity of Tehran's spatial structure.

Social ecology: Clearly the social structure of Tehran is very complex. Different social classes and symbiosis of different groups together, widening of social gaps and also social polarization and segregation, are all results of interior tensions of social ecologic structure of Tehran.

Public realm and territory: Public realms of Tehran are limited to some green spaces and commercial complexes and strips. These arenas are dominated by organizations and agents who are not public thus their dis/advantages are not the same as users (Torabi, 2006). Consequently, social life will not take place in public but private realm and silence.

Development: Development style in contemporary Tehran has roots in Qajar Period which was a non-indigenous development not in accordance with people's needs. Imposing large scale interference, ignorance of human scale, inharmonious development and its mismatch with the needs characterize Tehran's development projects.

Vernacular architecture: Architecture of service buildings implies a consuming sign pattern. Towers using glass, aluminum panels etc are examples of these buildings. In contrary, architecture of residential buildings faces a daily growth and diversity. A probable reason for this can be the urgent demand for house (Hayeri, 2010). Therefore, the mushroom-like growth of odd residential buildings across the city can be justified.

In conclusion, it seems there is long and tough path for Tehran to become a global city. Nevertheless a look at Tehran's historical evolution of Tehran shows that similar to its transition from a traditional town to an industrial and modern city through an internal and innate process but an imposed external one, the same process is taking place today meaning that globalization process of Tehran is taking place through policies, plans, terms and discourses but the proper ground for it has not been prepared yet.

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