## Sustainability as an Absent Proposition in Competitiveness Literature: A Critique of Competitiveness Literature with an Emphasis on Conditions of Iran

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#### **Abstract**

The competitiveness and reinforcement of competitive advantages have become a dominant discourse of economic development in recent decades, which is developing with different intensity under the influence of neoliberal economics in all countries. The present case study examines this concept at global level and Iran by considering competitiveness. Based on the reviewed definitions of competitiveness and main models for promoting competitiveness levels of countries and cities, there is no consensus among thinkers on the definition and concept of competitiveness. The results of research indicated that competitiveness is inconsistent with principles of sustainable development in terms of sustainability. According to definitions and models by Law and Hillier, the environment will be forgotten through making it absent and Othering. Further, it is impossible to discuss a comprehensive model for the world's countries and cities because competitive advantages vary in different time and places, and they have different priorities in different temporal and spatial situations. Based on the reviewed situation of Iran, this factor plays more significant role in promoting and reducing competitiveness among Iranian cities in the present and future according to environmental conditions of Iran.

**Keywords:** Competitiveness, absent and Othering, sustainability, Iran

#### 1. Introduction

Affected by globalization and given the movement of transboundary resources, urban and local governments are seeking to find their position in the global economy (Douglass, 2002; Sassen, 2011; Anttiroiko, 2014; Kresl and Fry, 2005). Within the framework of such global urban competition, increasing competitiveness is regarded as the main goal of cities. Therefore, the adoption of attractive strategies seeks to attract foreign resources from movement of global space (Anttiroiko, 2014: 1). Hence, globalization continues to be linked to

local scale and interacts with each other, called "local-global dialectics". According to Porter (1990) and Asheim et al. (2006), competitive advantage still depends on place and its characteristics. However, based on the reviewed literature on competitiveness in the world and a few conducted studies in Iran, place dimension has been emphasized only in terms of the provision of competitiveness prerequisites. On the other hand, place is considered as a driver for competition without taking into account the dialectical process of place as a driver, and place as a product. Therefore, Florida (2005), Lucas

(1988) and Sharifzadegan and Nedae-Tousi (2015) describe the role of place and ability to attract a creative class, skilled manpower or high-quality consumer as a factor in achieving competitiveness. In other words, the effect of competition on place, its sustainability as well as the competitive sustainability among regions and cities has been ignored. According to John Law, inspired by Jacques Derrida, "there is always an absence in front of presence" (Law, 2004: 157; Law 2002: 134).

"Some thinkers believe that the dominant economic system should be questioned. Its basic principle, as well as the global competition for profit in an open-rational market, creates the logic which is based on greed, inequality and pollution which will bring a fatal fate for a majority of people throughout the world (Alnadi and Rafat, as cited in Sarrafi, 2000: 140). The persistence of competition and economic growth on the foundations of natural and environmental resources as raw materials and environment influence on attracting capital and human capital, and limit on resources despite the fact that there is no limit to economic growth and more accumulation have converted the fate of regions and cities from a win-win game to win-loss game and provided major challenge to sustainability of land and environment. The concept of sustainability has become an absent- Othered proposition in literature on competitiveness although the recognition of these absences is essential. The present study aimed to provide a critique of competitiveness literature as well as famous global models (or drivers) for competitiveness in terms of sustainable development. Therefore, the basic questions of this research are as follows:

- To what extent is the prevailing model of competition of places consistent with sustainable development approach?
- To what extent are the introduced models and drivers for competitiveness consistent with conditions of Iran?

#### 2. Research method

The present study was conducted based on the analysis of competition and competitiveness literature. Therefore, the available literature on the competitiveness of regions was criticized considering John Law's approach on the presence and absence as well as Deleuze and Guattari's propositions, representation and non-representation. In addition, the national, regional, and urban competition was often the levels of competition in this study.

#### 3. Definitions of key concepts

#### 3.1. Presence and absent propositions

John Law (2004: 157-162) believes method assemblage is "the process of crafting and enacting the necessary boundaries between presence, manifest absence and Otherness". Law defines two forms of absence: manifest absence, "that which is absent, but recognized as relevant to, or represented in presence". Second form is "absence as Otherness, "that which is absent because it is enacted by presence as irrelevant, impossible or repressed". Otherness is necessary to presence but is repressed, excluded and forced into absence (Law, 2004: 157-162).

Law believes that debates about social and environmental justice oscillate between presence and absence. Some presence/

absences are deferred; of relations not now present, relations yet to come. There are oscillatory distributions between the present/ now and the absent/future or the absent/now and the present/future (Law, 2002; Hillier, 2007). Thus, planning is a sort of creative agonistic between presence and absence, manifest and latent (Cooper, 2005: 1698).

#### 3.2. Representation

Representation is a cultural process. It is also a political process, where individuals/ groups seek to persuade or coerce others into accepting that their representation is the "correct" one. Representations or "ideological fictions" are necessary for the discourse -logical consistency of planning practice- they structure our transcendent ideas and ideals of what is and what should be "out there" (Hillier, 2007). Since Gren

(2001) refers to representations as "one moment frozen in time,... a static snapshot"; Shields believes that representations may thus be treacherous metaphors (Shields, 1996: 229). According to Hillier, there are always more than what is represented; other which has been excluded. While these invisible factors, Others and absents might be more important than present ones (Hillier, 2007: 191-195).

#### 4. Definitions and models of competitiveness

#### 4.1. A review of definitions

The following table summarizes some definitions of competitiveness. These definitions cover a wide range of perspectives. In addition, the table classifies definitions based on the purpose, means, and means/ purpose nature of competitiveness.

Table 1. Classification of competitiveness definition based on the purpose and means

Classification of definitions	Definition of competitiveness	Researcher
Competitiveness as a purpose	Abilities of countries to create, introduce and distribute products and service in the field of international business, attracting demand from global markets, increasing citizens' income, increasing productivity, and attracting investment and labor	Scott and Lodge, 1985 OECD, 1992, 1996 Porter, 2002 Treasury, 2000 Krugman, 2003, 2005
Competitiveness as a means	Abilities of local economy and community to provide a high standard of living for residents, attracting investment and talented migrants, creating jobs and increasing income levels, achieving sustainable growth	Malecki , 2000, 2002 National Competitiveness Council (NCC) 2016
Competitiveness as purpose and means	Competitiveness means efficiency (achievement of goals with the least cost) and ability or having correct goals). It is a means for improving the standard of living and increasing social welfare, the reduction of involuntary unemployment rate, and increasing the level of productivity.	Buckley, 1988 Competitiveness Advisory Group 1995 EC, 1999, 2008, 2014

# **4.2.** Components of development success or regional competitiveness

Several perspectives and models can be identified for economic development and competitiveness by reviewing the literature and theories of urban and regional development and competitiveness. Some of these perspectives are presented in this section.

#### 4.2.1. Linear model (Greene et al., 2007)

Unlike other models, the linear model by Greene et al. is not complicated but it is provided in linear form of three sections including inputs (innovation, human capital, fixed capital, physical capital, financial capital, etc.), outputs (productivity), and outcomes (earnings and employment rate) (Greene et al., 2007: 6-7).

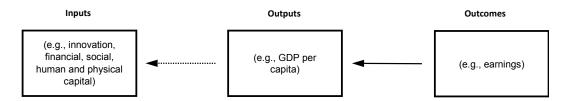


Fig. 1: Simple Model of Regional Competitiveness (Greene et al., 2007: 6)

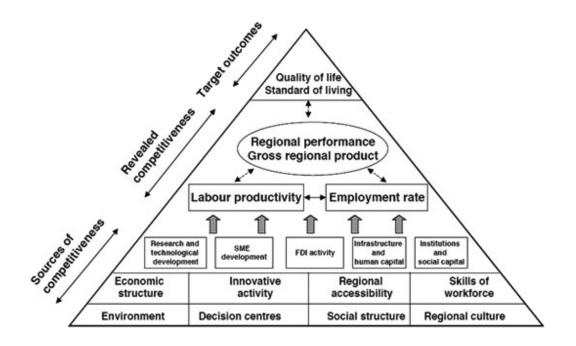


Fig. 2: Pyramid Model of Competitiveness (Gardiner et al., 2004)

### 4.2.2. Pyramid model (Gardiner et al., 2004)

Gardiner et al. (2004) provided a pyramid model in accordance with the following diagram to explain competitiveness.

Gardiner et al 's model is divided into three sections. The first part or pyramid base includes competitiveness sources. In other words, it covers the bases of competition in a city or region. These resources include skilled manpower, innovative activities, culture, etc. (Gardiner et al., 2004). "These resources are considered as input or advantages of competitiveness, and they can help cities or regions to draw their competitiveness power or ability" (Bobek et al. 2015: 19). These resources enter the second part called "revealed output of competitiveness". The employment rate and labor productivity which manifest as gross domestic product, are shown as output. This section indirectly leads to expected outcomes as the same improved quality and standard of living, which covers the third section of this model (Gardiner et al., 2004).

#### 4.2.3. Porter's diamond model

Porter offers a model of competitiveness known as the diamond model. Diamond model is shown in the following diagram.

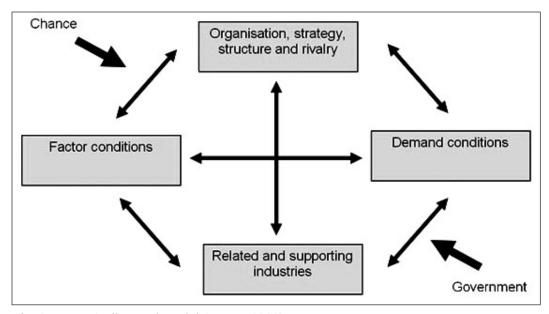


Fig. 3: Porter's diamond model (Porter, 1990)

In Porter's model, factor conditions refer to necessary conditions including skilled workforce or natural resources and infrastructure. demand conditions refer to the existence of demand, especially local and expectant customers (high-quality customer), firm strategy, structure and rivalry refer to a method of creation, organization and management of companies as well as the nature of local competitors, and related and supporting industries refer to the existence or absence of supporting industries or other related industries (Porter, 1990).

#### 5. Critique of views and definitions

#### 5.1. Critique of definitions

As noted, the definition of competitiveness can be divided into three groups of competitiveness as goal, means, and simultaneous goal and means. A group of experts believe that competitiveness means an increase in productivity and an increased employment as purpose. The second group also believes that competitiveness is a means to achieve high standards of living but they finally rely on quantitative statistics of employment and income levels, and the like in measuring standards of living. Further, in the literature related to competitiveness, there is a great confusion about whether productivity is considered as a result of competition or whether a region or city with high productivity is considered as a competitive region. As Martin and Sunley (2003) argue that "equating competitiveness with productivity is to invite tautology and ontological confusion: is a region more competitiveness because it is more productive, or is it more productive because it is more competitive?" According to Porter's definition, competitiveness is considered to be equivalent to productivity which increases the standard of living in a region, but standard of living is equal to manifest wealth (Porter, 2002: 3). However, numerous conducted studies indicate that there is no causal relationship between productivity growth and standards of living. Report by Department of Industry and Trade of the United Kingdom is regarded an example of these studies (DTI, 2003, as cited in Bristow, 2005: 290).

Furthermore, the provided definitions can be classified into two groups in terms of place features. The first group emphasizes the characteristics of place as the promotion of conditions in places or cities to attract a creative class (Florida's theory) or skilled workforce (Lucas's human capital theory, etc.). The second group, like Consumer City theory (Glaeser et al. 2001) focuses on the attractiveness of place to acquire more consumers for higher consumption. Thus, the first group considers the sustainability. which is still absent, because this absence is dependent on the presence (i.e. importance of sustainability is merely related to attract creative class or human capital). As John Law points out, "This type of absence is represented in the presence" (Law, 2004: 157). However, the second group converts environmental sustainability and resources into otherness. Law (2004) states that:

"That which is absent, because it is enacted by presence as irrelevant, impossible or repressed". Otherness is necessary to presence but is repressed, excluded and forced into absence "(p. 157)

Regarding to competitiveness models which Othering the sustainability debate or effects of consumerism on environment and future of urban competitiveness, Bristow (2005) states the following:

"The debate on regional competitiveness ignores the possibility that regional prosperity can be achieved by, for example, developing firms serving local and national markets and not just international ones, or by development of community or social enterprises which meet broader social and environmental as well as economic goals". (p. 295)

#### **5.2.** Critique of Models

Based on the three main models of this study, the global competitiveness models and drivers are not based on the closed-loop systems. The closed loop of these models ignores the sustainability of competitiveness and environmental sustainability. For instance, most drivers of competitiveness from Lucas (1988) to Romer (1990), and Florida (2005) and the like emphasize on the role of environment in acquiring creative class, skilled workforce, and so on. However, environment can no longer acquire human capital and workforce due to the unsustainability, which loses its competitiveness.

Generally, in the proposed models for competitiveness of cities and regions, the debate on environment and natural resources either includes the manifestation of absence through less valuation of environmental index or non-closed-loop nature of models, its conversion into otherness through highlighting the role of technology or workforce, or seeking to absent this component from competitiveness by representing the environment or natural resources as "fixed stocks". In addition, Florida (2005) considers human capital, technology, and knowledge as moving and floating flows, but raw materials as traditional and fixed factors" (Florida 2005: 7). This kind of representation of raw or natural resources cannot represent the reality. In other words, the separation of environment and resources from society and economy, which is more explicitly called "Disembeddedness" (Polanyi, 1957), dominates the competiveness literature. According to Guattari (2000), it is quite wrong to separate and consider separate application for Psyche, Socius and environment (as cited in Hillier, 2007: 179).

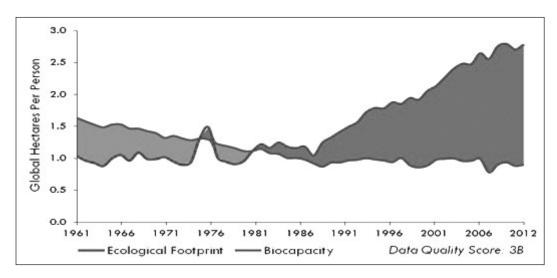


Fig. 4. Iran's ecological footprint and Bio-capacity during 1961-2012 (Global Footprint Network, 2016)

# 5.3 Environmental crisis: Absence or otherness of competiveness models in Iran

In recent decades, Newman and Thornley (2005) believe, "the success of cities is based on the maintenance of social cohesion and environmental sustainability" (p.44). Therefore, it is substantially important to focus on environmental sustainability for the success of cities. However, there are new records for environmental crises in countries and cities in recent decades, and the Iranian cities are not the exception. A recent look at the newest report of "Global Footprint Network" indicates the environmental instability of Iran.

Further, the report represents positive and direct correlation between the Human Development Index (HDI) and an increase in ecological footprint. In other words, countries with higher levels of human development have more ecological footprints.

On the other hand, the Happy Planet Index (HPI) indicates that the rank of Iran fell from 67 in 2006 to 84 in 2016 among 140 countries. Given four indices including well-being, life expectancy, income inequality and ecological footprint, this index investigates the status of countries (Happy Planet Index, 2016). An overview of the status of environmental indices also indicates the unsustainable and inappropriate environmental status of Iran. For instance, the "Environmental Performance Index" in 2014 indicates that "Iran was ranked 117th in terms of water resources and ranked 128th in terms of habitat and biodiversity" (Third National Report on the Environment Status of Iran, 2015). The status of water resources in Iran, soil erosion, and an increase in Sistan wind from 120 days to 150 days are regarded as other crises in Iran (Shahsavani et al., 2012).

Table 2. Iran Global Competitiveness Index (2015-2016) (WEF, 2015)

Subindex and pillars	Rank/140	Score/	
of competitiveness	countries	1-7	
Subindex A: Basic requirements	63	4.6	
1st pillar: Institutions	94	3.6	
2nd pillar: Infrastructure	63	4.2	
3rd pillar: Macroeconomic environment	66	4.8	
4th pillar: Health and primary education	47	6	
Subindex B: Efficiency enhancers	90	3.8	
5th pillar: Higher education and training	69	4.3	
6th pillar: Goods market efficiency	109	4	
7th pillar: Labor market efficiency	138	3.2	
8th pillar: Financial market development	134	2.8	
9th pillar: Technological readiness	99	3.2	
10th pillar: Market size	19	5.2	
Subindex C: Innovation and	102	3.3	
sophistication factors			
11th pillar: Business sophistication	110	3.5	
12th pillar: Innovation	90	3.1	

According to Table 2, among three proposed subsets for 12 indices of competitiveness in Iran, the "Basic Requirements" subset is regarded as the highest score and the "Innovation and Sophistication factors" subset has the lowest score. Accordingly, the competitiveness of the Iranian economy is based on the potential

of the first subset of competition (basic needs) although it has failed to promote in two other subsets including efficiency and innovation. Due to the dependence of competitive advantage of Iran on the first subset, the competitiveness of Iran is still based on the sales of raw materials and natural resources.

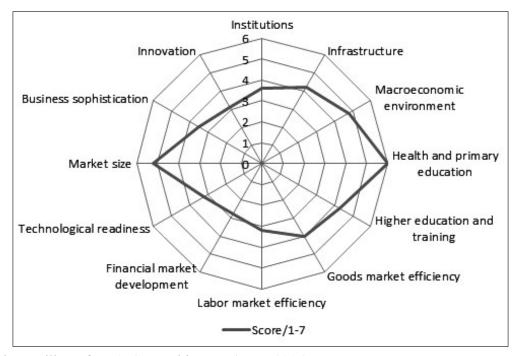


Fig. 5. Pillars of Iran's Competitiveness (WEF, 2015)

Regarding the study on competitiveness indices of countries and cities in the world. the index of resources and environment is significantly important for the cities in Iran and the Middle East in this era by considering the environmental conditions of Iran. However, the introduced models and ranking sites have paid less attention to unique temporal and spatial characteristics of cities and countries, and there is a kind of stagnation in these indices.

#### 6. Discussion and conclusion

The evolution from Fordism to Post-Fordism system of production leads to the "significance of places and cities in the international arena" (Ghourchi and Maleki, 2010: 156) and "an increase in competition for dominating global markets" (Gordon, 1999). Hence, the cities are seeking to raise capital by playing roles in post-Fordist system of production and outsourcing resulting in competition among the cities in order to maximize the benefit of current global economy and investment.

Based on competitiveness literature, competitiveness measurement models which rank countries and cities based on competitiveness have less emphasized the environmental quality factor in ranking system (manifest absence) or generally have failed to consider this index (otherness). As Nigel Thrift, Deleuze and Guattari refer to the inability of representation to show the reality. Foucault (2002) argues that ideologies and structures of power frame out the representations. According to Foucault, these structures and ideologies should be revealed and deconstructed, and those words or language should be crushed to reveal their hidden meanings (Foucault, 2002, as cited in Hillier, 2007, p.215). For instance, Treasury mentions productivity as the main element of understanding standards of living (Treasury, 2000, p.4). However, "productivity" cannot represent the reality of quality or standard of living due to its several introduced qualitative indices. As Klein points out, the concept of productivity, which is considered by Porter for measuring competitiveness is restrictive and ignores the complex nature of competition (Klein, 2001). For instance, examining countries in terms of ecological efficiency with respect to Gross Domestic Product (GDP) and ecological footprints, Szigeti et al. (2017) concluded that, despite the suitable ranks of Arab oil producing countries in the rankings, they failed to include ecological sustainability because their GDP was obtained from natural resources, resulting in increasing the ecological footprint (Szigeti et al., 2017). Therefore, the productivity cannot be used as a proper representation of ecological

sustainability since this representation does not represent the whole reality and only displays a part of it. Accordingly, spatial planning and governance of Iran require moving from representation to post-representation in order to challenge traditional views of the world and look at the world from a new viewpoint.

According to Boschma (2004), the proposed models for competitiveness should be commensurate with the circumstances and realities of that place when there is no optimal and generalizable model for competitiveness, and models cannot be copied. Considering the environmental conditions of Iran, it seems that the environmental factors and natural resources have been neglected in some studies on introducing a comprehensive model for regional or urban competitiveness in Iran, which is converted into absence or otherness; hence, the purpose is not to provide a comprehensive and complete model for competitiveness in the world or a particular region because such a model cannot be achieved as the drivers of competitiveness are changing in different places and time. In terms of time dimension, the importance of "environment and natural resources" component has increased, and thus this component should be more important given the environmental changes and crises. Therefore, the research question can be answered as follows: Given the absence or otherness of environment and natural environment debate in the literature of global competitiveness as well as the lack of attention of these indices to unique temporal and spatial conditions of environment in Iran, the existing literature on competiveness cannot lead to sustainable

competition. An increase in the efficiency and movement in order to strengthen innovation and knowledge-based economy, as shown in the second and third subsets of competitiveness in Iran (Table 2), can greatly help to increase both competitiveness and environmental sustainability in Iran. Furthermore, paying attention to the role of environmental governance in making the planning and decision-making system of Iran transparent and responsive can contribute to the achievement of urban and competiveness sustainability.

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