Chapter 22
Developing a Conceptual Framework for Knowledge– Based Urban Development in Isfahan, Iran

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ABSTRACT

We have witnessed vast economic, social, technological, and environmental changes that have influenced patterns of urbanization. Through all these years urban planning has also experienced major reforms. During last two decades, with emergence of knowledge economy, it is claimed that the nature of urban development has changed; this new notion of development is called knowledge-based urban development. As there is not clear methodology for directing cities development process, this chapter aims to formulate a conceptual model for cities leadership towards knowledge-based urban development. This chapter considers the city of Isfahan, Iran as a case study. Finally, a model is proposed according to literature review and using ANP method for analyzing the data gathered from the context. This conceptual model has also prioritized effective factors for KBUD.

1. INTRODUCTION

During the last two decades, a global knowledge-based economy has emerged so called "knowledge economy" which is named variously: "knowledge-based economy", "new knowledge" and "creative economy". In 21st century, the need for the power of knowledge has reduced the importance of tangible factors and has led to new era in which knowledge dominates (Yigitcanlar, 2011). Moreover, in this new economy, knowledge-based activities, especially creativity as a tacit form of knowledge, has been signified in order to employment and wealth creation and maintaining economic growth and place-making (Friedmann, 2010). Meanwhile, it is claimed that cities have a pivotal role in knowledge economy and the nature of urban development in relation with knowledge sectors needs conditions and environments which

differ from commodity-based production (Carrillo, 2004, 2006, 2009; Knight, 1995, 2008; Yigitcanlar, 2007, 2010a,b). This has resulted in an evolving literature that seeks the concept of knowledge-based development in cities as a development approach which goals are creating a place includes economic prosperity, environmental sustainability, a social-spatial order and good governance. This notion has been widely mentioned and accepted especially for competitive cities in knowledge economy (Knight, 1995; Lever, 2001; Yigitcanlar, 2011).

Therefore, it seems that entering knowledge economy to urban arena would have significant consequences for urban planning both practically and theoretically. Although there is consensus among theoreticians and researchers in the field of knowledge-based urban development that the knowledge economy changes the nature of urban development, but there is no precise and clear methodology that clarifies a theoretical framework to lead the development process. It seems that this notion is in the pre-paradigm level and no definite paradigm has been formed. So, still some questions have remained in this field:

- Does this way of development require characteristics and prerequisites in cities or can be adopted in any urban area?
- Which benefits and qualities separate it from the former urban development paradigms?
- What would be the consequences of this notion on the theory and practice of urban planning?

As the notion of KBUD has not been considered much in the field of urban planning in an Iranian context, this paper is going to examine the opportunities and perquisites of Esfahan to act as a knowledge city and also to develop a conceptual model for leading the city towards knowledge-based urban development.

2. KNOWLEDGE ECONOMY AND CITIES

The first delineation of the Knowledge Economy was introduced by the OECD in their 1996 report:" The Knowledge-Based Economy". According to this report, a Knowledge Economy creates, distributes, and uses knowledge to generate value and gives rise to "a network society, where the opportunity and capability to access and join knowledge and learning intensive relations determines the socio-economic position of individuals and firms". Moreover, knowledge and creativity are perceived as the engines of economic growth. In 21th century, the need for knowledge power has reduced the significance of tangible factors and conduced to new era in which knowledge is dominated (Yigitcanalar, 2011). In this new economy, knowledge-based activities, especially creativity has been emphasized as a tacit form of knowledge in order to create employment and wealth, maintaining economic growth and place-making (Friedman, 2010).

In the global knowledge economy, knowledge and information and the social and technological contexts for their creation and communication are now regarded as a solution for economic growth and prosperity (Lever, 2002).The replacement of physical products with intangible forms of production (e.g. information, ideas and knowledge) has significantly increased the role of cities and has led to the formation of knowledge cities (Yigitcanlar, 2010). The reason for this is the city nature that provides a context for knowledge production, supplication and exchange. According to this notion, knowledge

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