

Housing Indicators in Iran and the World and the Impact of a Smart City on Them

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Extended Abstract

1. Introduction

Housing is one of the most important issues in urban society, especially in countries like Iran. Each society has adjusted its housing systems following its own special conditions. Obviously, having an organized program for this matter requires a good understanding and the analysis of its various components and factors. One of the theories, which has emerged in recent decades for dealing with urban problems, is the theory of smart city. The current study aims to investigate housing indicators in Iran and the world and the impact of a smart city on them. Therefore, in the course of urban planning issues like smartization of cities and subsequently, changes and effects that they have on other urban dimensions and components must be taken into account as well.

2. Review of the Literature

This study shows that so far no research has been conducted about the effects of smart cities on housing indicators. However, studies about investigating housing indicators by the United Nations, as well as the researches by Mayo and Stephens (1992) and Flood (1997) are worth mentioning. As for internal sources, Azizi (2004) investigated the position of housing indicators in the housing planning process. He analyzed the position and alteration of urban housing indicators in Iran. In addition, Saremi and Ebrahimpour (2012) explored housing indicators of Iran and the world in Iran, England, and France and Keshvardoost, Hasanpoor, Ghamkhar, and

Moosapoor Miandehi (2013) study qualitative and quantitative indicators and estimation of housing required in Rasht city in Iran's 1400 vision plan. Regarding smart housing indicators, Li, Gu, Chen, He, Wu and Zhang (2018), Louis (2016), and Sripan, Lin, Petchlorlean, and Ketcham (2012) showed that they have common software and hardware characteristics for designing smart home systems. Also in the case of smart cities Intelligent Community Forum refers to items such as bandwidth infrastructure, knowledge-based workforce, innovation, digital democracy, and marketing as the main components of a smart city. Albert (2006) talks about smart people/users, technical infrastructure, institutional frameworks and applications. European Parliament (2014) mentions using digital technologies and telecommunications, improving the lives of citizens, environmental productivity, security and stability with control and supervision technology. Behzadfar (2003) noticed using new technologies and doing affairs 24 hours straight, providing services with high speed and efficiency, and providing people with more leisure time in smart cities. There are other studies in this regard.

3. Method

The current study is an applied research. It uses documentary and library data process to investigate housing indicators in Iran and the world with a qualitative approach. Using thematic content analysis method, these indicators were categorized into physical, social, cultural, and economic aspects. The indicators were extracted according to the items examined in the background section

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and after categorization the frequency percentage of each index was specified (below each category). The most important indicators were chosen based on criteria such as repeatability, frequency percentage, and mentioned by the most original theorists in this field. Then smart cities' impacts on housing indicators were analyzed.

4. Results and Discussion

Thematic analysis method is used for data collection and analyzing data in order to explain the purpose of the study and research findings are prepared by comparing housing indicators of Iran with those of the world and also smart city impacts on these issues. In this section, housing indicators in Iran and all over the world were analyzed physically, socially, culturally, and economically. Smart city characteristics were studied based on the views of various theorists and common points and points of distinction of these definitions and key components are specified. The research findings include indicators that accounted for the largest share of the categories. The research also shows that the studies that have been conducted so far on housing and related indicators lack a comprehensive approach towards these indicators and recent changes in civilization like population growth.

Furthermore, recent approaches such as the smart city are introduced as the solution for many urban society problems but its relationship with housing and housing indicators has gone unnoticed.

5. Conclusion

The results show that smartization of cities affects some of the housing indicators. For example expanding area, room numbers and other physical indicators caused by remote working and shopping in the urban housing; Green technology expands the per capita area of green space as well. An increase in leisure time in smart cities rises the need for service access. Mixed land use and using electronic systems in a smart city can affect increasing or decreasing of housing prices as an economic housing indicator. Also independence of the units in a smart city decreases neighborly relationships which is a social housing indicator; therefore, in the course of urban planning issues like smartization of cities and subsequently, changes and effects that they have on other urban dimensions and components must be taken into account as well.

Keywords: Iran and the World, Indicator, Smart City, Housing, Criterion

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