

Assessing the Resiliency of Iranian-Islamic Cities (Case Study: Tabriz)

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Extended abstract

1. Introduction

Natural and abnormal natural disasters are one of the most important issues in the planning and urban planning areas for managing crisis and risk, reducing the risk and damages, and increasing the safety and quality of life; hence, today, communities are struggling to find conditions that will have the necessary resiliency in the event of a crisis. In the meantime, for the management of Islamic cities in the period of crisis, in addition to attending to the physical dimension that has been paid more attention, other dimensions such as the spiritual dimension should also be noted because in discussing the management of crisis, all aspects and dimensions should be considered. So, the aim of this study was to assess the resiliency of Iranian-Islamic cities with the case study of Tabriz city and ranking urban areas of this city against environmental hazards according to the resilience dimensions of Islamic cities.

2. Theoretical Framework

The rise of community resilience to environmental hazards and disaster management is one of the most important and extensive fields of crisis management. Crisis management refers to interventions that occur before, during, and after an accident, to minimize the effects and side effects. In this regard, when human face with risks, always different measures and approaches to deal with environmental hazards (natural, technological, and social disasters) have been taken to manage the crisis, that one of the important cases of these approaches is city resiliency. A resilient city is a community that has the ability to withstand the impacts of a risk so that risks don't turn into disasters and yet have the ability or capacity to come back to normal, during and after the accident and also have the possibility for change and adaptation after the accident.

3. Methodology

This study is exploratory and applies the descriptive-analytic method falling in the group of applied researches regarding the goal of the study. In this research, first, indicators and factors affecting resiliency were identified based on Islamic principles and values through library studies. Moreover, a questionnaire was

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designed and the operational requirements were collected from the statistical study population, experts, and municipal specialists of ten districts of Tabriz city. In this regard, purposeful sampling was done due to the uncertainty of the number of experts and finally 74 completed questionnaires were collected. Also, using a questionnaire to determine the preference, the final weight of the indicators was determined by experts and then by the AHP model (Analytical Hierarchy Process) in Expert Choice software. Then, the obtained data were entered in excel environment. Consequently, using VIKOR model and its process, ten districts of Tabriz city were ranked in terms of urban resiliency. Finally, the relationship between quintet dimensions of Islamic cities' resiliency was analyzed by Pearson correlation coefficient using SPSS software.

4. Results and Discussion

According to the findings, the resiliency of Tabriz city is 43.4 that is lower than average. The findings on quintet dimensions of Islamic cities' resiliency within VIKOR model showed that the region of municipality one with a score of 0.000 have the highest and region of municipality eight with a score of 844.0 have the lowest amount of resiliency of the indicators of Iranian -Islamic cities among Tabriz city's municipality districts. Furthermore, the average of Q calculated for 10 rural areas of Tabriz was equal to 574.0 showing that the total resiliency of Tabriz Islamic city is lower than average. Also, Pearson's correlation coefficient showed that there is an inverse relationship between the spiritual dimension with other dimensions of resiliency (social, institutional, and physical).

5. Conclusion and Suggestions

The study concluded that along with the physical dimensions, social, spiritual, economic, and institutional dimensions should be taken into consideration. As a result, Tabriz city can be among the resilient cities when it has a tangible, balanced, and close growth at all quintet aspects of the study. In general, according to the ranking of urban areas of Tabriz city's districts in terms of resiliency, it can be concluded that regarding the physical dimensions, the areas with newer construction and with a program are resilient, while regarding the spiritual dimension, old areas with rusty texture that have indigenous peoples with more religious beliefs are resilient.

In this regard, it is suggested to empower citizens through awareness, culture, and training skills in order to reduce their vulnerability raised during an earthquake. Furthermore, while respecting the principles and rules of construction, people's access to vital and open arteries, overcrowding, and building congestion must be taken into consideration. In addition, in some cases, such as the law of determining the supervisor engineer (which is carried out by the owners), it is necessary that the amended laws and the appointment of the engineers be delegated to the public sector to influence the quality of the construction of the buildings.

Key Words: City resiliency, Urban areas, Islamic cities, Tabriz city, VIKOR model.

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