The Role of Environmental-Physical and Spatial Links Factors in the Vitality of Urban Streets
Case Study: The streets around Imam Khomeini Square in Hamedan

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Extended Abstract

Introduction
Responding the social needs of man and creating the necessary opportunities to create vitality in the community requires the existence of physical space. Public space is considered a huge capacity to respond to this aspect of human life. In fact, urban space is like an environmental structure for social interactions that can be accessed for members of the urban community; today, urban spaces as a phenomenon that arises from the interference between the various and essential aspects of modern life, is a symbol of a network of complex social relationships and forms many of the basic challenges in the lives of citizens.

Imam Khomeini Square is located next to the main city and economic heart of Hamedan, and most of its surrounding areas are commercial, thus playing a major role in the spatial structure of the city of Hamedan, which can serve as a social base for a considerable number of people in terms of age and sex in different hours of the day where they have a continuous and persistence presence.; Therefore, the aim of this study is to exploit the effective factors in creating vitality of the streets around Imam Khomeini Square in Hamedan and to investigate and explain the way of distribution of environmental-physical and spatial links' factors, and finding the most important effective factors in creating the vitality of the streets around Imam Khomeini Square in Hamadan and finally present strategies for contemporary design of urban street space.

Materials and Methods
In order to achieve the main goal of this research, as well as to test the hypothesis, a descriptive-analytical type of research is used, then the case-land survey method is used to studying the scope of the study and then the investigation and evaluation of the criteria extracted from the theoretical framework of research in the area of study is discussed. The data gathering tool was a questionnaire, interviews and observation. In this research, considering the existing population of Hamedan, it was decided to use Morgan table to randomly distribute questionnaires among 351 people present in the streets around Imam Square. Then, using factor analysis technique which is based on measuring the correlation of variables, the indicators and variables are reduced to a few factors, and variables that are not related to the subject are excluded from the scope of analysis. Spatial arrangement method was used to investigate the spatial links in the streets around Imam Khomeini Square in Hamedan. In order to introduce the practical concepts used in this study, in spatial arrangement method was used its main concepts, namely connections, depth and interconnection, In the next step, using GIS software, the environmental-physical dimension was measured and finally, using Moran’s model, the distribution of environmental-physical factors was measured at the study area.

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Discussion and Results

The most amount of clustering in the corridors in the streets of Shohada, Ekbatan and Babataher is due to market placement and distribution of well-balanced business centers and cultural heritage. The vitality of today is the missing circle of cities and urban spaces. Considering urban spaces comprise a major part of our spaces, the necessity of qualitative upgrade of these spaces by creating vitality is of particular importance. Because of the lack of vitality in urban spaces, many psychological problems have arisen in individuals; therefore, it is necessary to meet the social needs of individuals in such spaces and create the right opportunities for these needs. By calculating the correlation between the amount of independent environmental-physical variables and spatial links on the dependent variable of vitality, as well as the way of connecting the passages and their links, it is concluded that the index of the number of business centers as the most important factor and then the indicators of safety and security, how to link and connect the network, transportation accessibility, how to link and connect the applications and functions, how to link and connect the masses and space are the most effective components on the quality of street life that can be achieved by utilizing public transportation and pause and green spaces at the street to provide comfort and convenience for pedestrians, prioritize pedestrians and environmental permeability to the streets that are below the norms of this component greatly enhances the vitality of the streets and enriches it.

Conclusions

The results of this study indicate that among the environmental-physical and spatial link evaluating criteria, the most impacts are on the existence of shops and business centers and markets, and then on safety and security indices, how to link and connect the network of transportation access how to link and connect users and functions, the way mass and space are interconnected and intertwined are the most effective components on the vitality of the streets that can justify the present vitality on the streets of Ekbatan, Shohada and Baba Taher. Also, the average variation in the value of alignment and connections indicates that the streets of Ekbatan, Shohada and Baba Taher have a higher convergence value than the western and southern neighborhoods. This means that the network connections in this part of the city are in such a way that they are accessible to and within these streets are suitable and that the streets have a good position in the structure and framework of metropolitan areas, which itself promotes the economic and social activities and provides the conditions for physical, welfare and environmental development and, as a result, and thus vitality.

Keywords: Environmental-physical factors, spatial links, vitality, urban streets, streets around Imam Khomeini Square, Hamadan.
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