



Ranking of Quantitative and Qualitative indicators of housing with Application of Fuzzy DEMATEL Technique

Abbaspour, A^a., Etesam, I^{b,1}., Majedi, H^c., Shahcheragi, A^d

^a Ph.D. Student of Architecture, Department of Architecture, Science and Research Branch, Islamic Azad University, Tehran, Iran. ^b Professor of Art and Architecture, Department of Architecture, Science and Research Branch, Islamic Azad University, Tehran, Iran.

^c Professor of Urban Development, Department of Architecture, Science and Research Branch, Islamic Azad University, Tehran, Iran.

^d Associate Professor of Art and Architecture, Department of Architecture, Science and Research Branch, Islamic Azad University, Tehran, Iran.

Research Article

Extended ABSTRACT

Objective: In recent decades, the discussion of housing has been one of the most fundamental issues of the day. Providing suitable urban housing, especially for the low-income groups, is one of the most important issues and challenges for the world to achieve sustainable development, and almost all countries face serious problems in this regard. Therefore, paying attention to housing indicators and their promotion can facilitate planning and decision-making in this sector. Housing sector indicators are the most important and key tools in housing planning that are necessary to express the various economic, social, cultural, and physical dimensions of housing and have a special place in understanding the housing situation as much as possible; Housing standards in each country vary according to the general housing situation and are measured by different indicators. In this study, we specifically examine and rank the quantitative and qualitative indicators of housing from the perspective of experts who have sufficient expertise and experience in this field.

Methods: The present article is applied in terms of purpose and descriptive-analytical in terms of method. The method of collecting information in the form of documentary-survey and field has been done by completing a questionnaire. To collect the data, the opinions of experts in the field of architecture and urban planning and university professors and managers related to the housing sector were used. The sample size was determined based on theoretical saturation, 12 people were selected using purposive sampling method. After identifying the indicators affecting housing formation from the heart of the research background, Fuzzy DEMATEL Technique was used to analyze the relationship between these indicators.

Results: In this study, using Fuzzy DEMATEL Technique, the effective factors on housing formation were ranked; Two important issues that are the achievements of this statistical method, one is the most effective index, as opposed to the most effective index based on D-R column analysis, and the other is the degree of importance of the index obtained from the result of D + R column analysis. Based on fuzzy dimtel analysis data, social index, user participation and economic index have the greatest impact on other

¹ Corresponding author at: Islamic Azad University, Tehran, Iran, P.C: 47166-39469. E-mail address: ietessam@hotmail.com (Etesam, I).

factors affecting housing desirability. Also, the physical index is the most affected by other factors affecting the desirability of housing.

Conclusion: The results show that in the design of high-density residential complexes, attention to security, privacy, design of spaces for social interaction of residents, creating the ground for user participation, in the plans, primarily the importance of ranking indicators, in terms of Experts are located; Sense of security as one of the human-environmental factors will play an important role in providing comfort to residents and achieving a suitable residential environment. Providing security for low-income housing with high population density is one of the important issues of their housing. The role of social interaction in housing becomes very important with increasing density and should prevent the loss of privacy by creating a balance. Also, in creating housing space, in addition to paying attention to physical standards and physiological needs, the spiritual inclinations and diverse interests of human beings should be considered with the correct participation of them in order to improve the quality of life and social welfare of residents.

In this regard, it should be borne in mind that housing project experiences are successful when combined with the creation of the necessary institutions and structures. Having public institutions to identify needs and bring design ideas closer to the needs of users is very effective. Emphasis on scientific studies and research before the implementation of large-scale projects on a national scale can be a way to improve the quality of performance in this area so that the indicators affecting the proper formation of housing, at all levels, taking into account the conditions, It is necessary to show.

Keywords: Social Housing, Housing Indicators, Low-Income Housing.

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