

Assessment of qualitative and quantitative indices of housing by sustainable development approach (Case study: Saman City)

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Extended Abstract

Introduction

The Saman City has experienced remarkable urban population growth due to its location in the vicinity of Zayandehrud River and also its tourism-agricultural function. The population growth was resulted from rural migration into the city and also natural population growth rate. The population growth caused many problems including shortage in quantity of urban houses, young population, difficulties in urban development plans, urban structure, poor standardized urban structures and urban planning, economic weaknesses, and also many problems in quality of housing. The purpose of this research is to assess qualitative and quantitative indices of housing by sustainable development approach. Therefore, the sustainable development is independent variable and economic, social, and physical, environmental, housing facilities are considered as dependent variables.

Methodology

This is an applied research by descriptive-analytical method. The required data have been gathered by literature review, library investigation and going to offices. Some of data have also been collected by comprehensive plans and from Iran statistical organization. The data have been gathered by field works and questionnaire instrument. The sampling has been conducted in two stages. A sample of 320 households has been selected by Cochran formula using simple random sampling from a population of 4558 households in the Saman City. Subsequently, the questionnaires have been distributed among the households by cluster sampling method. The data have been weighted by Super Decisions through ANP method. Then, the data have been analyzed by three models of TOPSIS, Vicor, and copros to investigate situation of housing indices in the districts of Saman City.

Results and Discussion

Social index

To evaluate social index of housing, we have used four indices of social problems of housing, house safety against housebreaking, placidity in vicinity of the house, and existence of urban facilities near the houses. According to the results of the research, the areas older in urban residence have more suitable living situation. This is due to higher urban facilities.

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Economic index

For this index, we have used two indices, the ratio of renting cost to family income and the ratio of renting cost to total costs of the family. The results indicated that the districts 3 and 4 have more suitable situation compared with the districts 1 and 2.

Housing size index

To evaluate the housing size index, the study area have been divided into 6 levels including houses of 0-50 m², houses of 50-100 m², houses of 100-150 m², houses of 150-200 m², houses of 200-300 m², and houses of more than 300 m². The results have indicated that the district 3 with score 0.077 is at the first rank and the district 2 with score of 0.993 is at the lowest rank.

Density index

To evaluate this index, we have used three indices of family intensity in-house, number of rooms in family, and density of houses in building. The results have indicated that the district 1 is most suitable and district 3 is the least suitable.

Housing facilities index

To evaluate the index of housing facilities, we have employed eight indices of electricity, phone, water, gas, cooling and heating system, bathroom, and toilet. The results have indicated that the district 2 with the score of 0.816 of TOPSIS Model has the first rank and the districts of 3, 4, and 1 are ranged from 2 to 4 in the ranking.

Environmental index of housing

To evaluate this index, we also have used 7 factors. The results have revealed that the districts of the Saman City are not in suitable condition in terms of environmental situation.

Conclusion

The results of the research in Saman City indicated that many of the indices revealed unsuitability in urban houses and there is no stability and equality as the main components of sustainable development. Therefore, it can be concluded that the housing in Saman City is not according to the standards of sustainable development. The results of this study are consistent with the results of Bazi et al. about the lack of stability in housing in Hajarabad City. The reason for this consistency is acceptable feedback. Therefore, this study like other investigations suggests instability in urban housing based on qualitative and quantitative indices.

Keywords: housing, housing indicators, Saman City, sustainable development.

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