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Research Paper

Investigating the relationships between indicators of the concept of quality in urban open spaces for spending leisure time (case study of Arak city)

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Abstract

Urban open spaces have a high potential for all kinds of urban activities, including leisure time. This issue has become more important with the growth of urbanization and changes in the lifestyle of citizens. And the introduction of indicators explaining the concept of quality in these spaces, and how the relationships between them can be of special importance for urban planners. The current research is a descriptive-analytical study with a quantitative-qualitative approach. In this research, considering the relationship between the quality of open spaces as a goal, and the objective indicators that explain it, as indicators of the concept of quality, a structural measurement model has been proposed. And by using confirmatory factor analysis, the relationship between the introduced indicators and their impact factor on the purpose of the research has been investigated. Based on the findings, among the 45 indicators counted in the theoretical studies, 7 indicators did not have the necessary explanatory power and were removed. And the indicators of the concept of quality reached the number of 38 indicators. In examining the relationships and how these 38 indicators affect each other, it was found that 11 of these indicators are not correlated with other indicators. Also, by examining the factor loadings calculated for the mentioned indexes, it was observed that the index "the existence of land and facilities for play and excitement for all ages" has the greatest impact on the quality of open spaces with an impact factor of 0.66. This index is one of the indicators that have independent and non-correlated performance. Also, some indicators, such as the index of "entertainment activities, sports and physical fitness" with an impact factor of 0.62, although it is not part of the eleven independent indicators, it still has a high impact factor. This issue can be explained in this way, that the importance of the eleven independent indicators is not due to having a higher impact factor, but this importance is due to their independence and non-overlapping of possible shortcomings by other indicators. Therefore, managers and urban planners should be more sensitive to their situation.

Keywords: leisure time, urban open spaces, quality indicators, Arak.

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Extended Abstract

Introduction:

Urban open spaces have a high potential for all kinds of urban activities and are considered a platform for urban development. One of the important functions of urban open spaces is the issue of spending leisure time in these spaces, which has become more important in recent decades due to the rapid growth of urbanization and the revolution that has occurred in the lifestyle of citizens. It is obvious that addressing the issue of quality in urban open spaces and introducing the causes and contexts of quality in these spaces as indicators of the concept of quality, and examining relationships and how they influence and influence each other, can improve the quality of leisure time for managers and Urban planners are of special importance.

Methodology:

This research is a descriptive- analytical research with a quantitative-qualitative approach that was conducted as a case study. In this research, using the theoretical foundations of research, 45 quality indicators in urban open spaces have been introduced as indicators of the concept of quality in these spaces, and their status in the studied open spaces has been evaluated in the form of a checklist. The method of evaluating and collecting data using the aforementioned checklist was the exploratory walking technique. In this way, the aforementioned indicators were evaluated in 82 examples of the open spaces of the studied city (Arak - Iran), and a score between one and ten was given to the current state of each indicator. After completing the evaluation and data collection, considering the relationship between the quality of open spaces as a goal and the objective indicators that explain it, as indicators of the concept of quality, a structural measurement model was proposed and how the relationships between the introduced indicators and the coefficient Their impact on the purpose of the research has been investigated using confirmatory factor analysis. Then, by examining the output data, among the 45 examined indices, the indices that did not have the necessary explanatory power were removed. Then, considering the remaining 38 indicators, a structural model was presented again to measure the correlation between these indicators and the research objective. After confirming the fit of this model with confirmatory factor analysis and Lisrel software, the software's output charts including: standard factor loading charts, T-Value charts, and correction proposal charts or correction indices were used to answer the research question.

Results and discussion:

Based on the findings, out of 45 indicators that were considered as indicators of the concept of quality in urban open spaces for spending leisure time in theoretical studies, 7 indicators did not have the necessary explanatory power. As a result, the indicators of the concept of quality in urban redevelopment spaces reached 38 indicators. Among these 38 indicators, based on the chart "Suggestions for Lisrel Software Improvement", it was found that 11 indicators without correlation with other indicators are effective in explaining the concept of quality in urban spaces and as a result, they are more sensitive in this field.

Conclusion:

In identifying the relationships and how these 38 indicators affect each other, it was found that 11 of these indicators are not correlated with other indicators. Also, by examining the factor loading calculated for the mentioned indexes, it was observed that the index "the presence of land and facilities for play and excitement for all ages, code V20" has the greatest impact on the quality of open spaces with an impact factor of 0.66. This indicator is part of eleven indicators that have independent and non-correlated performance. Also, some indexers such as the indexer of "Entertainment, sports and physical fitness activities, code V28" with an impact factor of 0.62, although it is not an independent component of the 11 indicators, it still has a high impact factor, it can be seen from this He explained that the importance of 11 independent indicators is not due to having a higher impact factor, but this importance is due to their independence and non-overlapping of possible shortcomings by other indicators. Therefore, managers and urban planners should be more sensitive to their situation (eleven independent indicators).