

Management of Sustainable Construction in Residential Structures Using a Social Sustainability Evaluation Framework

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Introduction

Nowadays, the concept of sustainability has acquired widespread acceptance in the construction business. Despite recent tendencies toward including environmental and economic factors into building sustainability evaluation frameworks, social sustainability has received less attention. As a result, social issues were underrepresented in the primary categories of sustainability rating systems. As a result, such frameworks have failed to adequately correlate to social dimensions of sustainability, resulting in analytical support gaps that are required for sustainable decision-making. While there are some studies on social dimensions of sustainability around the world, research in poor nations is still scarce. To address this problem, the purpose of this research is to provide an assessment methodology that prioritises social sustainability in residential building construction [1].

Following the use of social sustainability indicators, criterion priorities were determined with the help of local experts using a multi-criteria decision-making technique. According to the findings, local experts ranked safety as the most significant factor to consider in the social sustainability assessment of residential buildings in Iran, while site considerations and equipment ranked as the least important. After safety concerns, the next most important criterion in terms of social sustainability in planning and building in this country was performance and adaptability. Based on the findings, it can be stated that establishing a social sustainability scheme that takes into account the priorities of a certain country can be a critical step forward in providing a responsive sustainability evaluation for buildings, particularly in developing countries [2].

Description

Today, sustainability is regarded as the most important issue in architecture, and most architects strive to build their designs on it. One of the most important steps done in this direction is the inclusion of the topic of sustainable development in long-term global planning. The Commissioner for the Environment and Development issued "Our Common Future" in 1987, which became known as the Brundtland Report. In this report, the Commission was introduced to sustainable development as "development that meets current demands without jeopardising future generations' ability to satisfy their own needs."

The word "sustainable development" appears to have lost its actual meaning nowadays. This is due to the fact that the term has been misused in numerous circumstances and has established a cliché, despite the fact that little action has been taken in Iran. As a result, despite the fact that everyone understands what this term means, Iranian architects and planners are still unsure what it means. As a result, in developing nations like Iran, very little

effort is put into planning the construction of sustainable residential buildings. As a result, a responsive evaluation methodology in terms of environmental, social, and economic issues is required for sustainable housing [3,4].

In examining the potential implications of structures and materials, sustainability assessment is critical. Many sustainability evaluation schemes have been set up all around the world. Recent study has found that environmental and economic elements have gotten greater attention than social aspects in most well-known assessment schemes of industrialised countries. These evaluation techniques became models for developed countries to use in order to improve building sustainability by quantifying environmental performance. As a result, most of these plans achieved sustainable structures by incorporating environmental and economic concerns into the outcome. However, it is worth noting that, by taking into account social sustainability challenges, sustainability evaluation frameworks can not only benefit buildings but also contribute to healthier occupants [5].

Conclusion

Many sustainability evaluation frameworks on the market are focused on environmental and economic issues, thus a social assessment system is required for long-term construction. In the case of residential buildings, this element demands even greater attention, as this sector has a huge social impact on metropolitan regions. Because of a lack of understanding of the social aspects of sustainability in evaluation systems, developing countries have been limited in their ability to adapt such schemes to their structures. This is because many well-known sustainability plans were established in the context of rich countries, ignoring the sustainability concerns of developing countries. It was discovered that such schemes were largely environment-focused methods that failed to achieve social sustainability assessment. Planners and construction experts are encouraged to use this social sustainability evaluation framework to make decisions during the construction phase of residential building projects, according to this study. Because the priority weight of each criterion and sub-criterion aids decision-making in the construction of sustainability.

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Conflict of Interest

The author shows no conflict of interest towards this manuscript.

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