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Sustainability Rating System for Infrastructure Projects in UAE

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Abstract : In spite of huge investments and the vital role infrastructure plays in the economy of UAE, the country has not yet developed an assessment scheme to measure the sustainability of infrastructure projects/development. The aim of this study was to develop a sustainability rating system for infrastructure projects in UAE using weighted indicator scoring. The identification of the list of 66 indicators was done by content analysis. The sources of content analysis were from government guidelines, research literature and sustainability rating system for infrastructure projects namely BCA Greenmark for Infrastructure (Singapore), ISCA (Australia) and Envision (USA). These indicators were shortlisted based on their relevance in the UAE. A mixture of qualitative and quantitative research methods is utilized to find the weightage to be applied to the indicators and to find suggestive measures to improve infrastructure sustainability in this region. Interviews and surveys were conducted with a good mix of experts from the industry. The data collected from the interviews were collated to provide suggestive measures for improving infrastructure sustainability. The collected survey data were analyzed using statistical analysis techniques to find the indicator weighing. The indicators were shortlisted by 75% to minimize the effort and investment into the process. The weighing of the deleted indicators was distributed among the critical clusters identified by Pareto analysis. Finally a simple Microsoft Excel tool was developed as the rating tool by using the calculated weighing for the indicators.

Keywords : infrastructure, rating system, suggestive measures, sustainability, UAE

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