

Realizing Sustainability Aspects Based On The Approach Of Kpis During The Life Of Emerging Buildings

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Abstract

The research seeks to achieve comprehensive sustainability, which takes into account the multiplicity of trends and methods to address sustainability and all its aspects. Because of the general trend toward making these aspects as indicators, the research relied on the approach of key performance indicators (KPIs) as a successful approach to promote sustainability aspects. Accordingly, the study aimed to achieve sustainability aspects based on this approach. Therefore, the study investigated this approach and its valuable role; also, collected KPIs of the three sustainability aspects, and identified the challenges of applying KPIs and their relationship with sustainability. Because of the large number of KPIs, the study proposed a methodology to deal with KPIs by ranking the three aspects and their KPIs according to priority and make decisions to accomplish the highest levels of sustainability throughout the project life. Additionally, the study evaluated the validity of this methodology through the surveys, finally applied to a type of buildings such as a hotel project, and got the results as a final guiding model to be a sustainable project.

Keywords: Key Performance Indicators (KPIs); Sustainability aspects; Economic; Social; Environmental; Hotel; Guiding model; Analytic Hierarchy Process (AHP).