

Abstract

Title: LEED Rating System

Sub-Title: An investigation on the effectiveness of economic viability, energy saving and client satisfaction in the LEED buildings

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Purpose: Environmental issues have steadily climbed up corporate firms agendas. Commitment to the environment, through sustainable practices, can also deliver cost savings, for example through eliminating unnecessary waste and maximising energy usage. This is where the concept of the Leadership in Energy and Environmental Design (LEED) as a green building rating system comes to the forefront of modern thinking. Nowadays the excitement of LEED system has become a reality and these discussions are about the realisation of the concept. This paves the way for an in-depth study of the concept and to examine if this concept is truly as superior as it claims to be.

Methodology: A comprehensive literature review to find that LEED rated buildings ultimately have positive net financial benefits combined with environmental justifications and financial justifications. This led onto investigation using the multi-method approach was grounded in theory, with primary data sourced from a case study scrutinized by way of five individual yet associated semi-structured interviews, reinforced through the use of questionnaires. The secondary research comprised both historical and archival analysis. It was expected the findings and recommendations would benefit any party engaging in LEED system rated construction.

Findings: This study/research has shown that LEED ensures good practice in incorporating the most energy efficient features and educating building users on how to maintain efficiency, save energy and reduce costs. LEED are currently a slow growing reality and it is recommend the adoption for future projects, but decision should be on a case by case basis. LEED is mainly driven by the by corporate sustainability targets and among firms strategically positioned as environmental leaders. It is also easy to approach the sustainability goals, extremely popular with USA based multinational and a very good at marketing itself. The key recommendations included the planned budget with additional LEED building premiums ranging from 2% to 5%, with a median of 2.5%. The research concludes by analyzing the building operation using conceptual model before the actual design and construction. Hence it would be better if it started a bit earlier than design stage. Finally, try to sign a contractual Post Occupancy Evaluation (POE).

Keywords: benefits, certification, client satisfaction, green building, leadership in energy and environmental design, perception, post occupancy evaluation.