

Designing a Pre-Assessment Tool to Support the Achievement of Green Building Certifications

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Abstract : The impact of common buildings on climate and environment has prompted people to get involved in the green building standards aimed at implementing rating tools or certifications. Thus, green building rating systems were introduced to the construction industry, and the demand for certified green buildings has increased gradually and succeeded considerably in enhancing people's environmental awareness. However, the existing certification process has been unsatisfactory in attracting stakeholders and/or professionals who are actively engaged in adopting a rating system. It is because they have faced recurring barriers regarding limited information in understanding the rating process, time-consuming procedures and higher costs, which have a direct influence on pursuing green building rating systems. To promote the achievement of green building certifications within the building industry more successfully, this paper aims at designing a Pre-Assessment Tool (PAT) framework that can help stakeholders and/or professionals engaged in the construction industry to clarify their basic knowledge, timeframe and extra costs needed to activate a green building certification. First, taking the first steps towards the rating tool seems to be complicated because of upfront commitment to understanding the overall rating procedure is required. This conceptual PAT framework can increase basic knowledge of the rating tool and the certification process, mainly in terms of all resources or information of each credit requirements. Second, the assessment process of rating tools is generally known as a "lengthy and time-consuming system", contributing to unenthusiastic reactions concerning green building projects. The proposed framework can predict the timeframe needed to identify how long it will take for a green project to process each credit requirement and the documentation required from the beginning of the certification process to final approval. Finally, most people often have the initial perception that pursuing green building certification costs more than constructing a non-green building, which makes it more difficult to execute rating tools. To overcome this issue, this PAT will help users to estimate the extra expenses such as certification fees and third-party contributions based on the track of the amount of time it takes to implement the rating tool throughout all the related stages. Also, it can prevent unexpected or hidden costs occurring in the process of assessment. Therefore, this proposed PAT framework can be recommended as an effective method to support the decision-making of inexperienced users and play an important role in promoting green building certification.

Keywords : green building rating tools, Pre-Occupancy Evaluation (ProE), client's decision-making, certification

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