Assessment of Smart Buildings in the City of Port of Spain, Trinidad and Tobago: Some Findings and an Approach

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Abstract: *This paper investigates into the levels of smart building (SB) designs, and reports the findings of a recent study on adopting a standalone versus integrated SB strategy in Trinidad and Tobago (T&T) namely the capital city of Port of Spain. It explains the need to initialising a SB Assessment approach and discusses how the approach could incorporate the SB elements into assessing building designs adopted in facilities management and construction sector. Incorporation of a review on various common SB strategies with related developments in T&T, a two-stage methodology comprising a questionnaire survey and a series of personal interviews, was employed to acquire views from building practitioners (including owners, developers, operators, and managers) in T&T. The analysis addressed multiple conditions of building strategies, and identified gaps between the design concepts and performance of SBs in T&T. The findings provided some empirical ground for deriving a five-step SB assessment approach, comprising 1) building governance, 2) defining SB, 3) deriving SB indices, 4) developing component/attributes index, and 5) mapping building design. The proposed SB assessment serves as a practitioners-oriented approach to assess SB solutions in T&T and a wider Caribbean region. Future study would validate the key elements identified for SB designs and strategies of varied residential purposes and commercial/operations nature.*

Keywords: *Smart Buildings, Design, Strategies, Assessment, Trinidad and Tobago*