WELL building for developing countries: critical design criteria for residential buildings in Malaysia

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Abstract

Purpose – This study aims to investigate the interrelationship between critical design criteria (CDC) that affect health, well-being and productivity (i.e. WELL) for residential buildings in developing countries, using Malaysia as a case study. To achieve the aim, the objectives are to identify CDC that affect WELL collectively; determine CDC that affect health, well-being, and productivity simultaneously; and analyze the interrelationship between the CDC.

Design/methodology/approach – Data from the semi-structured interviews and a systematic review of the existing literature were gathered for survey development. Next, survey data was collected from 114 professionals living in multistory buildings. Finally, normalized mean analysis, analytic hierarchy process (AHP), agreement analysis and Spearman correlation analysis were used to analyze the collected data.

Findings – Out of the 51 potential design criteria, 16 are critically affecting WELL collectively. Furthermore, six are critically affecting WELL collectively as well as health, well-being and productivity simultaneously: property price, water flow and supply, water treatment, pest management, management services and waste management. Finally, "water treatment" is highly correlated to "water management" and "water flow and supply." In addition, "waste management" and "management services," as well as "fire safety" and "emergency evacuation plans," are highly correlated.

Originality/value – This study's originality includes investigating the CDC of residential buildings for the first time, to the best of the authors' knowledge, in a developing country. As a result, this study uncovers

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