

Title: Modeling the construction readiness parameters for abandoned housing projects in Malaysia: PLS-SEM approach

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Abstract: This study aims to develop an interrelation model between critical parameters for assessing the construction readiness (CR) of abandoned housing projects, using Malaysia as a case study. To achieve that aim, the study objectives are to (1) identify critical parameters for assessing the CR of abandoned housing projects; (2) develop underlying constructs to categorize interrelated critical parameters and (3) assess the influence of the underlying constructs on the CR of abandoned housing projects. This study identifies potential parameters for assessing the CR of abandoned housing projects by reviewing existing literature and interviewing industry professionals. Then, the list was used to develop a questionnaire survey. The collected survey data were analyzed using normalized mean analysis to identify the critical parameters. Exploratory factor analysis (EFA) was used to develop underlying constructs to categorize interrelated critical parameters. Finally, the influence of the underlying constructs on the CR of abandoned housing projects was examined through partial least squares structural equation modeling (PLS-SEM). The analyses suggest that 21 critical parameters are affecting the CR of abandoned housing projects. The critical parameters can be categorized into four underlying constructs: construction site evaluation, management verification, uncertainties mitigation and document approval. Finally, the analyses confirmed that all four constructs affect the CR of abandoned housing projects. This study is a pioneering effort to quantitatively analyze the parameters for assessing the CR of abandoned housing projects. The findings significantly benefit researchers and industry professionals by providing a list of critical parameters associated with the CR of abandoned housing projects.

Keywords: PLS-SEM, Socially and culturally sustainable architecture and urban design, Abandoned housing projects, Abandoned projects, Construction readiness, Resume construction

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