

**EXAMINE PUBLIC PERCEPTION OF
PREFABRICATED HOUSING AS A SCALABLE
SOLUTION FOR URBAN HOUSING AFFORDABILITY:
A SPECIAL REFERENCE TO THE COLOMBO
SUBURBS IN SRI LANKA**

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219519H

Degree of Master of Spatial Planning Management and Design

Department of Town & Country Planning

University of Moratuwa

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DECLARATION

I declare that this is my own work and this thesis does not incorporate without acknowledgement and material previously submitted for a degree or diploma in any other University or Institute of Higher learning and to the best of my knowledge and belief it does not contain any material previously published or written by another person except where the acknowledgement is made in the text.

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ABSTRACT

The urban housing shortage in Colombo and its suburbs is a crisis due to increasing urbanization. Finding innovative and scalable solutions to this crisis, rather than the instruments introduced by traditional housing policies, is of great importance. prefabricated housing has been widely recognized in the academic literature as a beneficial construction method, however its use in Sri Lanka is still limited. existing studies suggest that public perception play a crucial role in the adoption of innovative housing solutions, empirical evidence on this is lacking in the local urban context. This study examines public attitudes towards prefabricated housing using the Technology Acceptance Model (TAM) and its extended framework. The main objectives are to identify the key determinants of public acceptance and to propose policy-relevant strategies for promotion. A quantitative, cross-sectional research design adopted covering Local Authorities of Moratuwa, Kolonnawa and Maharagama. As per the study, economic and functional factors mainly influence the intention to use of prefabricated housing. Perceived cost emerged as the strongest factor, followed by perceived usefulness are influencing behavioral intention. Contrary to traditional TAM assumptions, perceived ease of use had a weak effect on the adoption that is due to the limited practical exposure and lack of experiential familiarity with prefabricated housing. Although factors such as trust, social influence, compliance, and risk did not show a direct statistical effect, they acted as enabling or limiting conditions. The factor of social image, although weakly correlated, significantly increased the explanatory power of the model when included in the regression analysis. This study concludes that the prefabricated housing system has high potential as a robust solution to urban housing crisis and highlights, policy interventions need to go beyond simply reducing costs and build practical exposure, institutional trust, and social legitimacy. Government assurances, demonstration projects, targeted financing mechanisms, and public awareness programs are essential to re-establish the prefabricated housing system as a reliable and respectable housing option, and to achieve inclusive urban development and Sustainable Development Goal 11.

Keywords: Prefabricated housing, public perception, TAM model

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