



“Gheorghe Asachi” Technical University of Iasi, Romania



ANALYSIS OF THE DRIVING MECHANISM AND COUNTERMEASURES FOR GREEN BUILDING DEVELOPMENT BASED ON STRUCTURAL EQUATION MODELING

Jian Chen^{1,2*}, Lifeng Rao^{1,2}

¹Jiangxi Provincial Department of Transport, Nanchang 330013, China

²Jiangxi Comprehensive Transport Development Research Centre, Nanchang 330013, China

Abstract

To effectively promote the growth of the green building market, this study systematically defines the influential factors driving green building development across four key dimensions: the green building market environment, ecological value, economic benefits, and social environment. Utilizing Structural Equation Modeling (SEM) with Amos software, we establish a structural model for the green development within the construction industry. This model identifies the key influencing factors and critical pathways responsible for driving Green Building Development, shedding light on the underlying mechanisms. Additionally, we propose corresponding countermeasures.

Our findings reveal that ecological value and the market environment of green building have both direct and overall impacts on the Green Building Industry's development. In contrast, the social environment and economic benefits of green building exert indirect effects on its development, acting as central nodes in critical impact pathways. This research offers a comprehensive model and actionable recommendations for advancing green building development, providing practical guidance for stakeholders in implementing green building strategies.

Key words: driving mechanism, green building, influence path, SEM model

Received: April, 2023; *Revised final:* July, 2023; *Accepted:* July, 2023; *Published in final edited form:* July, 2023

* Author to whom all correspondence should be addressed: e-mail: cnjxcchenjian@163.com; Phone: +86-13870878535