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A Survey of the Structure of Construction Projects Using BIM ~Focusing on Malaysia and Vietnam~

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1. INTRODUCTION

This study addresses the significant issue facing the construction industry due to a declining labor force. It highlights the Ministry of Land, Infrastructure, Transport and Tourism's efforts since 2010 to enhance labor productivity through the adoption of Building Information Modeling (BIM). Despite the widespread adoption of BIM and its promotion as a tool for information sharing in construction projects, confusion regarding its purpose and application has emerged, particularly after the formation of the BIM Promotion Council in 2019. This research focuses on Malaysia and Vietnam—countries experiencing economic growth—to explore the implementation and impact of BIM within construction projects from a project management perspective. It seeks to understand the current dynamics, changes, and objectives of construction projects through an in-depth analysis of the systems and initiatives related to BIM.

2. RESEARCH METHOD and RESERCH RESULT

This study examines construction project approaches and BIM utilization in Malaysia and Vietnam, beginning with government-issued BIM guidelines. It evaluates BIM awareness and proficiency through university syllabi comparisons in Japan, Malaysia, and Vietnam, and surveys on BIM practices among construction firms. The research reveals that Japan's architectural education leans towards corporate needs, whereas in Malaysia and Vietnam, it aligns more closely with professional roles, indicating a fragmented industry. Malaysia's government-driven BIM initiatives, focusing on human resources, are viewed as successful despite economic challenges. Vietnam, striving for BIM adoption, faces obstacles due to infrastructure development delays, with an increasing focus on eco-friendly BIM practices and regulatory measures.

3. CONCLUSION

Amid expected economic growth in Southeast Asia, particularly in Malaysia and Vietnam, the construction market is set to expand, intensifying competition among ASEAN construction industries and foreign entrants. This situation highlights the need for comprehensive strategies in securing and executing construction projects. Despite Japan's mature construction industry, evolving project demands call for transformation. Challenges vary globally and by country, affecting standardization efforts. BIM practices differ across nations due to diverse economic policies, yet the trend towards construction market globalization is inevitable. International collaboration and information sharing through BIM could reveal innovative construction project methodologies, leveraging the critical information aspect of BIM.

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