



## Mass Timber Building Material in The U.S. Construction Industry: Determining the Existing Awareness Level, Construction-Related Challenges, and Recommendations to Increase its Current Acceptance Level

<https://research.thinkwood.com/en/permalink/catalogue2736>

Author: Ahmed, Shafayet  
Arocho, Ingrid

Publisher: ScienceDirect

Year of Publication: 2020

Format: Journal Article

Topic: Market and Adoption

Keywords: Construction Difficulties  
Awareness  
Acceptability  
Industry Practitioners  
Mass Timber  
Construction

Research Status: Complete

Series: Cleaner Engineering and Technology

### Summary:

Timber has been considered as a promising building material because of its structural rigidity, environmental sustainability, and renewability nature. In Europe and Australia, timber materials have been used for many different types of construction such as residential, commercial, education, and industrial. However, in the U.S., the familiarity of timber products is gaining momentum. The construction practitioners are still reluctant to consider mass timber as a mainstream building material. A limited number of case study projects make it difficult for industry personnel to evaluate the actual construction feasibility of mass timber. As a result, a significant knowledge gap has been created that hindering the progress of mass timber material in the U.S. construction industry. To help solve the problem, this study aims to identify the existing awareness level among the U.S. building constructors regarding mass timber building materials. It further determines some of the major construction-related difficulties of mass timber buildings and recommendations overcome those difficulties to increase the acceptance of this material. The study performed a semi-structured questionnaire survey to carry out statistical analysis regarding mass timber building material. Analysis of descriptive statistics suggested that the level of awareness and involvement by the U.S. construction practitioners in mass timber building is still significantly low as 55% of the participants indicated no experience on mass timber building construction projects. Qualitative data analysis suggested that lack of experience in timber construction, poor coordination among the project parties, design-related difficulties, and high cost of mass timber panels are the biggest construction-related barriers to adopt this product. To overcome the existing difficulties, the study proposed an increasing number of timber building projects and manufacturing plants, effective early collaboration among the project parties, developing skilled workers, and a nation-wide promotion by the owners and the architects. The outcomes of this study will be helpful for the industry practitioners and the owners to adopt mass timber as a mainstream building material. The study will further increase the acceptance of this material in the U.S. construction industry.

Online Access: Free

### Resource Link

---

<https://doi.org/10.1016/j.clet.2020.100007> 