

A State-of-The-Art Review of Alternative Delivery Systems in Horizontal Construction

**Yuanxin Zhang, Ph.D.,¹ Dekun Liang,²
Yiting Yan,³ Zeyu Wang, Ph.D.⁴ and R. Edward Minchin, Ph.D., PE⁵**

¹ Associate Professor, Department of Construction Management, School of Management, Guangzhou University, Guangzhou, China 510006; e-mail: yuanxin@gzhu.edu.cn

² Research Assistant, Department of Construction Management, School of Management, Guangzhou University, Guangzhou, China 510006; e-mail: 1965400090@e.gzhu.edu.cn

³ Research Assistant, Department of Construction Management, School of Management, Guangzhou University, Guangzhou, China 510006; e-mail: 1965400082@e.gzhu.edu.cn

⁴ Associate Professor, Department of Construction Management, School of Management, Guangzhou University, Guangzhou, China 510006; e-mail: wangzeyu@gzhu.edu.cn

⁵ Professor, Rinker School of Construction Management, University of Florida, 304 Rinker Hall, Gainesville, FL32611; e-mail: minch@ufl.edu

ABSTRACT

Choosing a proper delivery system is one of the key decisions for the success of infrastructure projects because it affects the duration, costs, risks and sustainability of the projects. Although plenty of research has been conducted in this area, there are few studies that systematically characterized and analyzed delivery systems research. Therefore, this research aims to conduct a systematic state-of-the-art review of the related research in delivery systems in the horizontal construction industry. First, research scope as to alternative delivery systems is defined. Then, the preferred reporting items for systematic review and meta-analysis (PRISMA) method and scientometric analysis were used to search for the literature on delivery systems in horizontal construction. Finally, quantitative and qualitative analysis were performed on the literature data. This study reveals the growing trend of the number of papers on the intersection of horizontal construction and alternative delivery systems from 2011 to 2021, and finds the main delivery systems and research trends, the heated debates, and future development trends.