Sustainable Solutions for Enhancing Efficiency, Safety, and Quality of Construction Value Chain Services Integration

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Abstract : In view of the increasing speed and quantity of the housing supply, building, and civil engineering infrastructure works triggered by the pandemic across the globe, contractors, professional services providers (PSP), including consultants (e.g., architect, project manager, civil/geotechnical/structural engineer, building services engineer, quantity surveyor/cost manager, etc.) and suppliers have faced tremendous challenges of the fierce market, limited manpower, and resources under contract prices fluctuation and competitive fee and price. With qualitative analysis, this paper is to review the available information from the industry stakeholders with a view to finding solutions for enhancing efficiency, safety, and quality of construction value chain services for public and private organizations/companies' sustainable growth, not limited to checking the deliverables and data transfer from multi-disciplinary parties. Technology, contracts, and people are the key requirements for shaping the construction industry. With the integration of a modern engineering contract (e.g., NEC) collaborative approach, practical workflows are designed to address loopholes together with different levels of people employment/retention and technology adoption to achieve the best value for money.

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