## Measuring Sustainability Risk in the Construction Industry of Saudi Arabia.

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**Abstract :** Saudi Arabia and other emerging nations have faced significant challenges in the sustainable construction industry. This paper presents a quantitative approach for assessing sustainability risk in the Saudi Arabian construction industry and offers insights for holistic sustainability design in industry operations. The implementation of sustainable construction industry practices in the manufacturing sector has been susceptible to several risk factors that need to be identified. In order to successfully execute sustainable building projects, Decision makers in the fields of construction and industry can benefit greatly from the advice this study offers by promoting the elements that motivate sustainability implementation. sustainability risk by combining failure probability with cumulative effects from social, environmental, and economic factors that affect the integrity of the construction industry. The cumulative effects of sustainability risk are measured by classifying the outcomes resulting from these consequences. Operators of industrial construction can strategically manage and minimize potential disruptions affecting long-term sustainability incentives by measuring sustainability risk. Thus, the suggested strategy greatly reinforces the crucial role of the construction industry.

Keywords : sustainability, risk, construction Industry, saudi arabia

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