

Chaotic Dynamics of Cost Overruns in Oil and Gas Megaprojects: A Review

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Abstract : Cost overruns are a persistent problem in oil and gas megaprojects. Whilst the extant literature is filled with studies on incidents and causes of cost overruns, underlying theories to explain their emergence in oil and gas megaprojects are few. Yet, a way to contain the syndrome of cost overruns is to understand the bases of 'how and why' they occur. Such knowledge will also help to develop pragmatic techniques for better overall management of oil and gas megaprojects. The aim of this paper is to explain the development of cost overruns in hydrocarbon megaprojects through the perspective of chaos theory. The underlying principles of chaos theory and its implications for cost overruns are examined and practical recommendations proposed. In addition, directions for future research in this fertile area provided.

Keywords : chaos theory, oil and gas, cost overruns, megaprojects

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