

Dar Al Riyadh Insight #77

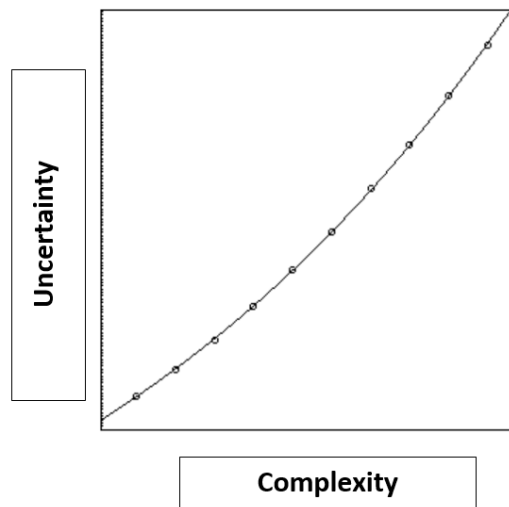
Relationship of Uncertainty to Complexity

Dar Al Riyadh Insights reflect the knowledge and experience of our Board, executives and staff in leading and providing PMC, design and construction management services. Dar Al Riyadh believes in the importance of broadly sharing knowledge with our clients and staff to improve project outcomes for the benefit of the Kingdom of Saudi Arabia.

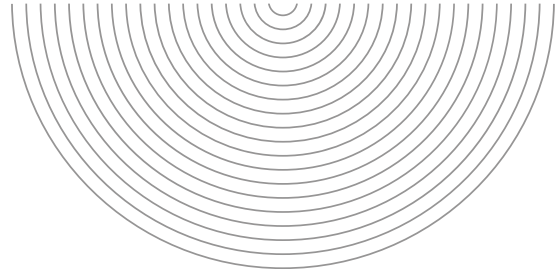
Relationship of uncertainty to complexity

Large, complex projects face high degrees of uncertainty.

Stage-gate mentalities make it difficult for managers to take on risk, the very attribute which is often necessary when dealing with both complexity and uncertainty. The flexibility of response that uncertainty demands is constrained by traditional project inflexibility. Flexibility is about taking action while continuing to think. Adjusting as necessary.



When uncertainty and complexity are both high, maintaining flexibility and optionality until unknown unknowns have emerged provides for the best ability to make the right decision. This requires valuing conceptual slack, a heterogeneity of perspectives focused on maintaining a variety of viewpoints to protect against groupthink.



High uncertainty and complexity are a characteristic behavior of large complex projects. High uncertainty, even in less complex projects, still demands a level of flexibility beyond what traditional project management organizations provide for.

This contrasts with low uncertainty and complexity where standard project management and risk practices suffice.

Uncertainty fundamentally differs from risk which can be probabilistically assessed. Uncertainty represents an unknown future with equally unknown impacts. There is no information to support a calculation but there is enough insight to suggest that maintaining capabilities and capacities to address and deal with uncertainty is valuable.