



Dar Al Riyadh Insight #9 Foundations for Success – Optimism bias and Poorly founded risk assessment

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.

Large complex projects require strong foundations if they are to be successful. Arguably, these are the same foundations any project would require but experience suggests otherwise. When we look at recurrent weaknesses in foundations for success of large complex projects we see several recurring themes.

This Insight looks at two additional weaknesses.

Optimism bias in estimates

Optimism bias is driven by our susceptibility as good engineers to being baited by "framing questions". Daniel Kahneman's Noble Prize speaks directly to these susceptibilities. We fail to use reference class forecasting to provide a check on this bias and even more disturbing really fail to mobilize data which we have to undertake those reference class forecasts

Poorly founded risk assessment and modeling

Poorly founded risk assessment and modeling is a key foundational challenge. Even with excellent average values as a starting point, we assume that the uncertainties around these means reside in a Gaussian world. Results suggest this is not the case and non-Gaussian behaviors and models are increasingly used in modeling of natural (catastrophe) and financial systems. Project management performance is a function of two factors: the validity and resilience of the baseline we are managing to; and the effectiveness of our management to it. The industry does much to put baselines in place and improve project execution against those baselines, but what if these baselines are fundamentally flawed (think about a mistake in a line of code in a program that only becomes obvious in extremes but misleads, ever so slightly, in all calculations it does).

We will delve deeper into the range of risks large complex projects face in future Insights.