دار الرياض
DAR AL RIYADH

Dar Al Riyadh Insight #75
Contingent Execution

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.

Introduction

Large complex projects require an increase focus on "flows," those tiny arrows we see on various charts connecting the 50-100,000 activities typical for such projects. This focus on flows, importantly, must recognize that even in the most robust plans, variability may require related tasks to be either accelerated or delayed to reflect project realities. This variability is made more acute as influencing flows enter and interact with established project plans and both planned and ongoing activities. Flows encompass a set of associated behaviors that can have various impacts on the efficiency and effectiveness of project execution, especially with large complex projects.

Management of this variability requires an ability to execute many project activities on a contingent basis, responding to or taking advantage of temporal variability in the execution and completion of the myriad of project activities and tasks. In effect and to the extent possible, project plans must have a degree of temporal flexibility. This flexibility may be achieved through contingent execution, but also through buffers and "distributed float," although the latter is not optimal. The interaction of action conditions and execution timing gives rise to uncertainty of action durations, which may have cascading effects on the project execution plan.

Temporal Flexibility

Is variation in the numbers of hours worked and the timing of the work, including starting, ending and durations. Typical forms are flextime, overtime, shiftwork, zero-hours contracts, compressed working week, seasonal-hours contracts, and annual-hours contracts. Temporal flexibility may take advantage of buffers in the project schedule to accommodate delays or extended durations and resequencing of project activities (accelerating into a buffer period) although attention must be paid to the potential to create rework.

Characteristics of Contingent Execution

Characteristics of contingent execution have typically encompassed strong centralized planning with temporally flexible plans. The multiplicity of stakeholders and arising influencing flows are further supportive of more distributed and decentralized planning and execution, albeit with centralized consistency checking.

Asynchronous input streams, changing resource availability, and execution options are hallmarks of large complex projects. Management information must now include information on how the output of a preceding task will flow to the subsequent task and how outputs will flow onwards. These flows have characteristics with respect to whether they are planned or are contingent as well as when they will actually occur and whether any buffering mechanisms will enable the optimization of overall project flows.

The nature and timing of these flows will be shaped increasingly on a dynamic basis, not on a rigid, fixed plan basis. As such, project execution must include a contingent capability to redirect and retime various flows or act to restore already influenced flows to an optimal state, recognizing this may be significantly different than the original transformative plan.

Summary

The practice of including "alternative execution options" to the primary components of baseline transformative plans has shown itself to be value adding. Having a Plan B or multiple backup plans well thought out for every Plan A helps the mental strength of the program/project management talent to always be ready for contingent execution opportunities when they arise.

Additional insight into effective contingent execution can be gained from studying post-disaster response and reconstruction.