

## Chapter 62

# Risk–Centric Performance Measurement: Deriving Best Value from Performance Management Systems

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### ABSTRACT

*This chapter will discuss methods for managing risk through the use of a risk-centric performance management approach. The author will describe the research and analytics that led to a better understanding of how and why realized risks persist in preventing project success despite our evolved knowledge, systems and tools. This chapter will address the fact that bureaucratic and sluggish systems using trailing indicators often elongate the discovery of and may conflate the underlying project issues to be addressed. The author will demonstrate it is imperative to minimize any time lag in identifying trends and acutely focus on risk drivers to increase the chance for a successful project outcome. The point will be made that our forensic-based project performance measurement systems are no longer effective in today's environment of increasingly complex fast-track projects. Tackling the challenge of gaining better value from capital project delivery performance management systems is the primary goal of this work.*

### INTRODUCTION

This chapter will discuss methods for managing risk through the use of a risk-centric performance measurement approach. The author will describe the research and analytics that led to a better understanding of how and why realized risks persist in preventing project success despite evolved knowledge, systems and tools. This chapter will address the fact that bureaucratic and sluggish systems using trailing indicators often elongate the discovery of and conflation of the underlying root causes. The author will demonstrate that when duration-based costs represent a substantial portion of project costs, it is imperative to acutely focus on risk drivers and maximize the accuracy of the performance measurement information and minimize the time in identifying any deviations to plan in order to increase the chance for a suc-

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successful project outcome. The point will be made that forensic-based performance measurement systems are no longer effective in today's environment of increasingly complex fast-track projects and how we can tackle the challenge of gaining better value from capital project delivery performance management systems. To succeed in effectively managing project risks "find the signals from within the noise" that complex projects now generate so that corrective and mitigation actions can be implemented.

The objective of this chapter is to educate the reader on performance management issues, the results of those issues and learn some efficient and effective solutions to derive the best value from their people, processes, systems and tools through a more risk-centric approach to performance management.

## **BACKGROUND**

Project controls can be described as the disciplined application of practices with cost and schedule controls to ensure timely and cost efficient project delivery. Performance measurement and management systems are at the core of these controls. Performance management systems are now challenged by the increasing scale and complexity of projects and their lack of prejudice towards risk-critical drivers which results in only "best effort" monitoring of performance yielding suboptimal outcomes.

Critical reviews of major project executions over the last decade have resulted in the following findings of results:

- Robust, integrated project control strategies that are not articulated nor supported by the developed KPI's.
- Semi-factual and biased monthly reporting is the prevalent norm causing untimely attempts at corrective actions. Issues are mistakenly conflated and therefore solutions are misapplied.
- The use of Earned Value progress and performance measurement, even when prevalent in its usage, still suffers from obfuscation and distortion.
- Excessive reliance on 3<sup>rd</sup> party data for all forecasting with minimal back checks.

Weak performance management personnel, strategies, processes, systems, tools and practices are having devastating impact on project success rates. These archaic approaches are often responsible for many of the cost variances and failures on major projects. These outdated information delivery systems delay getting credible and actionable information to decision-makers due to their rear-window analytics. This is often driven by less than robust performance measurement approaches being employed due to the high cost of implementing approaches such as Earned Value Management Systems (EVMS). Only "not for profit" endeavors such as government sponsored programs can afford the inefficiencies that come at such high costs. Better value must be derived from our performance management approaches to effectively and proactively manage project risks so that all can afford to implement them.

## **PERFORMANCE MANAGEMENT SYSTEMS: ISSUES AND CHALLENGES**

Current technology provides the opportunity to greatly improve efficiencies in executing design, engineering and construction of capital projects from what our predecessors did thirty years ago yet meeting project objectives is still very challenging. The digital information age also delivers us more information

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