

# Chapter 81

## Supply Chain Performance Measurement and Organizational Alignment

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### ABSTRACT

*The authors describe how organizations can leverage a maturity model approach in conjunction with foundational concepts of perspective-based performance evaluation models like Balanced Scorecard (BSC) to define comprehensive performance measurement framework. Maturity models are essentially a reflection of theories about how the capabilities of an organization evolve. Therefore, by design, they provide a roadmap to the next level of performance. The authors propose using maturity models as a structured way of identifying current capability or maturity level of any supply chain. They then provide guidance on selecting the right “causal linkages” between supply chain objectives and performance measures and define a mechanism for specifying more granular definitions of measures linked to strategic objectives for progressive levels of maturity. The authors survey widely used business process maturity models, current practices for measuring operational metrics, and then present a tiered framework for operational metric alignment and KPI governance, based on perspective-based design principles.*

### INTRODUCTION

*There are elements of Chance, Choice and Certainty in every aspect of our lives – Zoroaster*

Financial metrics are useful lagging outcomes of the performance of an organization, but the operational metrics in-turn are leading indicators of an organizations future performance. Operational metrics, when correctly defined, act as guiding posts to the desired performance end state. Thus, the key question which we attempt to answer is; ‘How to define metrics, which are aligned to the strategic context, as well as

DOI: 10.4018/978-1-5225-1837-2.ch081

deployable in operational reality?’ There are two aspects to this question; alignment to the strategy and operational deploy–ability. ‘Operating metrics are often poorly understood and guidelines for the use of metrics are often poorly articulated’ (Melnik et al., 2005). The primary challenge is to define metrics such that they are consistent with the strategic objective and the activities at the execution level. Whereas, the secondary challenge then becomes, maintaining this alignment, in the dynamic operational context.

Performance management is a multi–step virtuous cycle that involves creating strategy and plans, monitoring the execution of those plans, and adjusting activity and objectives to achieve strategic goals. A performance management system, consisting of interlinked business architecture and IT architecture, should support this virtuous cycle (Wayne, 2009).

Over the years, a variety of performance measurement systems have been designed and studied by academics and consultants, but organizations struggle to leverage such systems effectively. Over a period of time, disconnect between strategy and metric deployment process are introduced due to changed operational realities both on the IT as well as on the business front. Sometime, minor changes to metric definitions – over-time – lead to incorrect understanding of the measures. To overcome these issues, we propose a comprehensive mechanism to maintain alignment between the operational metrics and organizational strategies, which will enable organizations to – proactively evolve performance management systems as they grow, implement better IT systems and refine operational processes. Subsequent sections of this chapter provide an overview of the fundamental building blocks of our proposed metrics alignment and governance framework. These building blocks are as follows: Balanced Scorecard, Supply Chain Maturity Models and Causal Loop Diagrams from System Dynamics for identifying ‘causal linkages’.

## **Balanced Scorecard Fundamentals**

The Balanced Scorecard (BSC) introduced by Kaplan and Norton in 1992, has been one of the most widely adopted management tools for describing, communicating and implementing strategy. BSC retains financial metrics as the ultimate outcome measures for company success, but supplements these with metrics from three additional perspectives; customer, internal process, and learning and growth as the drivers for creating long-term shareholder value (Kaplan, 2010).

Over the past two decades, BSC has evolved from being a tool to translate and communicate strategy, into a strategy management framework. It helps define strategy as a collection of ‘strategic objectives’ and provides a comprehensive measurement framework, that links operational performance improvements to customer and financial performance. “Operational effectiveness and strategy are both essential to superior performance, which, [...], is the primary goal of any enterprise” (Porter, 1996). The success of Balance Scorecard is due to the fact that it provides an overarching view of both these key aspects in an easily comprehensible fashion. Of the three elements; Chance, Choice and Certainty, BSC helps map with *Certainty* the measures of operational effectiveness to those with the strategic objectives of an enterprise.

It is needless to say that when organizations change their strategies, though not a trivial or a frequent activity, the basic premise on which the BSC is designed for the organization, changes. A shift or change in strategy obviously calls for a re–design of the BSC for it to remain relevant in the changed context. But how does one go about accommodating the changing operational realities in the BSC system? As companies gain experience in execution, fine tune their processes and use better technologies, the premise on which operational effectiveness and corresponding measures are defined also change. These changes need to be accounted for in the BSC for it to remain relevant in the changed operational context. Changes

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