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Letter from the Editor

This issue of *DM Review Extended Edition* covers a wide range of topics from business performance management to health care information quality and the need for data profiling tools. Thanks for reading. Please send your feedback to editorial@dmreview.com.

Mary Jo Nott
Editor in Chief

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An Objective Look at Business Performance Management

By Bill Collins

Leaders continually seek ways to improve their organization's results, and many new management techniques are available to them. This situation has both good and bad aspects.

The good:

- Organizations want to operate more effectively.
- Creative people develop new management techniques that work and can help when well implemented.
- Advances in IT make possible today what was impossible yesterday.

The bad:

- Software vendors and management consultants coin new terms to hype what they sell as new, cutting edge and sexy.
- Organizations want different (better) results but don't really want to change - which is just another way of saying that they're composed of human beings.

Business performance management (BPM) is a technique that has been getting a lot of attention. Should leaders consider BPM to improve their organizations' effectiveness? This article answers that question. It explains:

- What BPM is,
- How BPM works,
- Why to consider BPM, and
- How to do BPM right.

What is Business Performance Management?

BPM, corporate performance management (CPM) and enterprise performance management (EPM) are essentially the same thing. Gartner Inc. defines EPM as "the process of monitoring performance indicators across the enterprise, with the goal of improving overall business performance."[1] Another definition of BPM is concepts and methods to improve business decision-making by using fact-based support systems.

In practice, BPM works through scorecards and/or dashboards that compare actual performance to targets and/or acceptable ranges. It may include the ability to drill down into unexpected or undesirable results to see the underlying transaction detail. It may include cascading scorecards and dashboards that summarize performance up an organizational hierarchy. Although BPM is best known for presenting information with sophisticated graphical and display techniques, the essence of BPM is how organizations use that information to make better business decisions.

The Essential Elements of BPM

BPM is a management process enabled by an information system. A BPM solution has six essential elements:

- Decisions,
- Strategic objectives,
- Measurement system,
- Data,
- Data visualization techniques, and
- Enabling software.

Decisions

When considering any initiative, particularly one as complex as BPM, it is easy to become caught up in the details of the implementation process and lose sight of the goal. The goal of BPM is to make better business decisions and, ultimately, to better achieve the organization's mission. The process of BPM entails obtaining information about performance, making decisions using that information and executing those decisions.

Strategic Objectives

Every organization exists for a reason. For governmental and not-for-profit organizations, the raison d'etre is accomplishment of a particular vision. Private organizations also have missions, which typically include increasing the wealth of their shareholders. Strategic objectives are important because they describe how the organization will accomplish its mission(s). Without them, there is nothing to guide decision-making. As legendary New York Yankee Yogi Berra said, "You got to be very careful if you don't know where you're going, because you might not get there."

Measurement System

To manage performance, an organization needs a measurement system with three components:

- *Objectives*: What the organization wants to accomplish;
- *Metrics*: Measures of actual performance; and
- *Performance targets*: The desired value (or range of values) for each metric.

The relationship between the measured value of the metric and its target value communicates whether (or the extent to which) the organization is meeting or progressing toward its objectives.

Choosing the right metrics is key, because what the organization chooses to measure (and not measure) signals to the employees of the organization what management pays attention to and, therefore, what is important. For example, if the metric is sales revenue rather than profitable sales, the sales force will close every deal it can, whether profitable or not. If manufacturing is measured on output volume but not quality, it will churn out large volumes of product of unknown quality.

Many organizations use a management framework to structure their objectives, performance targets and metrics. Common management frameworks for BPM are the balanced scorecard, economic value added (EVA) and Six Sigma.

Data

The metrics that measure actual performance are derived from data. The bulk of this data is data about business events captured by the organization's transaction-processing systems, but external data about the environment in which the organization operates might also be used. For most organizations, lack of data is not an issue; they are drowning in data. The question for each organization is whether it has the data it needs (with the right timeliness, precision and quality) to calculate the performance metrics it has chosen.

Data Visualization Techniques

Whether the information presentation vehicle is a dashboard, scorecard, chart or report, its objective is to surround the information with relevant business context and thereby make it easy to understand. This task can be much more difficult than it appears.

Both scorecards and dashboards present a large amount of information on a single display screen. Because they are information-dense, they must be carefully designed to present the information for easy comprehension by human decision-makers. Effective presentation of information is a specialized body of knowledge pioneered by Edward Tufte and extended for dashboards by Stephen Few and others. It includes design elements such as icons, gauges and charts. It also includes placement of those elements on the screen, color, contrast and so on.

Enabling Software

Business performance management requires an underlying IT solution. Typical elements of this solution include data from transactional and other systems, transformation of that data into the performance metrics, storage in a data warehouse and presentation of the metrics to the decision-maker. The presentation software gets the most attention because it is the only element of the IT solution that the decision-maker sees, and vendors of the software products used for information presentation are vocal proponents of BPM because it helps them sell more software.

The information presentation layer of a BPM solution usually is built using one of a class of software products called business intelligence (BI) tools. The key thing to know about BI tools is that virtually all market-leading products have good dashboard and scorecard functionality. Therefore, which BI tool to use typically is not a critical decision for a BPM initiative.

How Does BPM Work?

At its heart, BPM is a structured decision-making process, illustrated by the diagram in Figure 1. The process begins with strategic objectives, which were discussed earlier. The metrics are what the organization measures to determine progress toward the strategic objectives, and their targets are the values that must be achieved in order to meet the objectives. The metrics and targets portion of BPM is no different than for any other measurement system.

Actual performance is the result of individual business events recorded as transactions in an organization's information systems. Such business events could be the shipment of an order, an incoming call to a customer support call center or collecting diagnostic data from a hospital patient. This event data is typically extracted from the transactional system, transformed into the performance metrics and stored in a data repository. The metric information, both actual and target, is presented to the decision-maker in the form of a dashboard or scorecard. The transformation of the business event data into the performance metric values and its presentation are the IT-intensive portions of the process.

Decision-making begins with comparison and analysis of actual performance (as represented by the metric value) versus the target value of the metric. BPM systems strive to make this analysis easy by the way they present the information. They may use a green-yellow-red stoplight metaphor, a gauge similar to an automobile speedometer, a line chart to show trends or other methods. The goal of the dashboards, scorecards and other presentation vehicles is to use the data visualization techniques to present performance information with as much business context as possible in a way that the decision-maker can quickly and easily understand.

The outcome of the analysis process consists of one or more decisions to take action. The purpose of the actions is to change actual performance: to bring it, as reflected in the metrics, closer to achievement of the objectives. Until those actions are taken, no value has been realized from the BPM system or process. Information, analysis and understanding are useful, but they are merely means to the end of achieving the strategic objectives.

Why Do it?

There are few new ideas in the practice of management. Virtually all "new" management techniques are extensions of existing techniques, new applications, combinations of existing techniques, or existing techniques made easier through the application of advances in IT. BPM has gained traction as a management technique because it combines the power of several existing techniques and technologies:

- BPM leverages the underlying measurement system to provide closed-loop

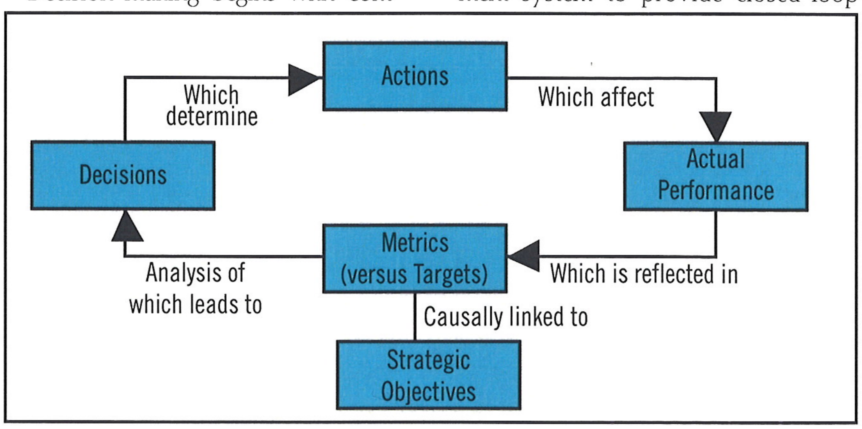

Figure 1: Business Performance Management Feedback Loop

feedback about performance, as shown in Figure 1.

- The management framework (balanced scorecard, Six Sigma or other) contributes to the alignment of the organization with a single set of strategic objectives and their accompanying metrics.
- Data warehousing techniques and technology enable the entire organization to use a common set of information (facts), often described as a single version of the truth.
- Data visualization techniques and BI software combine to present the performance information in ways that are both rich in business context and quick and easy to understand.

The combination of these techniques and technologies into BPM has proven to be both useful and effective. That's why you should consider it for your organization.

How to Do BPM Right

Improvement initiatives are not for the faint of heart. Management techniques enabled by IT are even more difficult to adopt because they entail the additional complexity of implementing the IT solution. BPM is not immune to these challenges. The best practices applicable to all improvement initiatives - executive sponsorship, sufficient funding, realistic expectations and timetables - apply to BPM. The following issues are particularly important:

BPM is more than a software implementation project. BPM is a management process enabled by information technology, primarily software. Because a BPM initiative has a software development and implementation component - obtaining the source data, cleansing it, transforming it, integrating it, storing it in a data warehouse, designing and building the dashboards and/or scorecards - some organizations think of it primarily or even entirely as an IT project. It is not. Implementing BPM is a strategy execution effort that entails significant change management. The IT work is necessary and must be done competently, but it is not sufficient by itself to achieve BPM.

Data must exist and it must be of sufficient quality. The information provided by BPM is in the form of metrics based on data: data about business events or transactions, data about the external environment and so on. If the necessary data is not captured, not retained or not of high quality, the measurement system will fall apart and the BPM effort will fail.

Management must be hungry for data and must want to make fact-based decisions. One of the core values and concepts of the Malcolm Baldridge National Quality Award is "management by fact." While chairman and CEO of General Electric, Jack Welch was famous for wanting data; many of his disciples, such as Bob Nardelli, currently president and CEO of Home Depot, have the same reputation. Not all executives share this trait. In many organizations, executive management makes decisions based on its worldview, intuition or prejudices, rather than on fact, and doesn't want any more information. There are various reasons why this is so, but they are irrelevant to understanding BPM. BPM is fundamentally about using information (facts) to make decisions. If your management is not interested in facts, consider very carefully whether you should attempt BPM.

The organization must have well-articulated strategic objectives. A report about implementation of the balanced scorecard by the American Productivity and Quality Center noted that many organizations have found it to be a challenge. The report also found that, for some, one reason for the challenge is that "they have not effectively articulated their strategy in the first place."[2] Without clear strategic objectives to link performance to accomplishment of a mission, an organization risks having a performance measurement system that guides it to results that don't matter.

Metrics must be causally linked to strategic objectives. Metrics are the mechanism used to gauge progress toward accomplishment of the strategic objectives. The relationship between a metric and the strategic objective it supports must be more than correlation: it must be causality. In other words, achieving the target value for a metric must mean progress toward realization of the strategic objective. Selecting the right metric(s) for each objective to ensure such a causal link can be quite difficult. Without it, however, measurement is a waste of time.

Metrics must be controllable and the information presented must be actionable. In order for a BPM metric to be useful to a decision-maker, he or she must be able to affect its value by making a decision. For example, imagine a trucking company with a network of terminals around the country and a dashboard for each terminal manager showing information about the performance of his or her terminal. The terminal manager can take actions that will influence metrics such as inventory accuracy, picking accuracy and handling damage. On the other hand, the price per gallon of diesel fuel may be of interest to the terminal manager, but he or she can do little to change its value.

The decision-maker must know what action to take in response to the information about the metric. In the case of inventory accuracy, the action might be to implement, improve or increase cycle counting; for handling damage, it might be to implement or improve forklift operator training.

BPM enhances a traditional performance measurement system with IT to present decision-makers with timely, contextual, easy-to-understand information with which to make decisions and take action. BPM can be a vehicle to ensure organizational alignment with strategic objectives and have all parts of the organization use the same numbers. Well implemented and executed, it can be a powerful tool to drive achievement of strategic objectives, accomplishment of an organization's mission and realization of business value.

Executives who want to improve the effectiveness of their organizations should strongly consider implementing BPM. DMR

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1. "The Gartner Glossary of Information Technology Acronyms and Terms." Stamford: Gartner, Inc., 2004.
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